FEDERAL COMMUNICATIONS COMMISSION

SPECIAL ACCESS WORKSHOP

Washington, D.C.

Monday, July 19, 2010

PARTICIPANTS:

Moderators:

JONATHAN BAKER
Chief Economist, Federal Communications Commission

DONALD STOCKDALE
Deputy Chief and Bureau Chief Economist
Wireline Competition Bureau, Federal Communications Commission

Panelists:

DENNIS CARLTON
Katherine Dusak Miller Professor of Economics, Booth Graduate School of Business at the University of Chicago,
Senior Managing Director, Compass Lexecon

WILLIAM TAYLOR
Senior Vice President
NERA Economic Consulting

BRIDGER MITCHELL
Senior Consultant Charles River Associates

LEE SELWYN
President Economics and Technology, Inc.

* * * * *

P R O C E E D I N G S

MR. BAKER: Good afternoon. I want to get started on time because we have a lot to get through. I'm Jonathan Baker. I'm the FCC's chief economist. And I'm delighted to welcome everyone to a staff workshop in the FCC's proposed rulemaking on special access rates for price cap local exchange carriers, which is WC Docket 525.

We have invited today four economists who submitted declarations to our record: Two for incumbent local exchange carriers or price cap exchange carriers -- I'll call them ILECs -- and two for the No Choke Points Coalition. We'd like to explore in greater detail their views about the analytical framework that the Commission should employ in this matter. And our goal today is to clarify differences on some economic issues raised in this proceeding that are of particular interest to the FCC staff.

So in our limited time we cannot hope to address every important issue that -- or even every important economic issue that's at stake in this proceeding, so please don't assume that if -- that issues we haven't raised are unimportant or uninteresting to us. So just for example, we're not planning to ask about -- specifically about the effectiveness of fiber-based co-location proxies and the price flexibility rules or the impact of particular terms and conditions on rates, although I suppose it could come up. But these are important issues that the Commission is concerned with.

We're also not intending to prejudge any issue by the way we -- the questions are asked. So if you panelists think the question's based on an implicit assumption that you want to dispute, you're welcome to do that, but then please also answer the question.

So with me at the table are four outside economists. I have to find my -- here we go. So for the ILECs, at the far end, we have Dennis Carlton, the Katherine Dusak Miller Professor of Economics at the Booth Graduate School of Business at the University of Chicago and a senior managing director for Compass Lexecon. And also for the ILECs, William Taylor, who's a senior vice president at NERA, an economic consulting firm.

The coalition representatives are, first, next to Bill Taylor, Bridger Mitchell, who's a senior consultant at Charles River Associates. And then to my immediate left, Lee Selwyn, who's the president of Economics and Technology, Incorporated.

On the FCC side, I am joined by, to my right, Donald Stockdale, who is the deputy chief and the chief economist for the Wireline Competition Bureau, and also Nicholas Alexander, who's an associate bureau chief for the Wireline Competition Bureau.

So let me tell you in a moment on the format. We'll begin with five minutes from each of our panelists describing the major themes he'd like to highlight for us, and then I'll start asking question in four major topic areas. I'll try to take no more than 15 minutes asking three questions to one side, and then -- for whoever wishes to respond -- and then give the other side 10 minutes to comment.

And then from the FCC side here, we'll take no more than 10 minutes in follow-up questions for whoever it makes sense to ask questions to that we want to follow up on. And then we will switch topics, we'll switch who goes first, as between the coalition folks and the ILEC folks.

And then at the very end we'll have some time for additional questions about anything that comes up that seems to make sense to ask.

We want to get a lot done in a short time, so I will be tough on keeping the segments to the allotted time. We'll be running a light board here for you folks to let everyone know here when time's run out.

And for those of you here in our studio audience who have questions, please write them on the index cards, you know, and raise them up and someone will collect them. And if you're in our Internet audience, you can e-mail questions to livequestions@fcc.gov.

So let's begin with some initial iThemes from our four participants, and I understand that Bill, we decided, would go first. So, Bill?

MR. TAYLOR: Yes, thank you. Yes. Thank you. It's a pleasure to be here. I think a wonderful thing to get all sides together and talking. You may not realize it, but this is the 10th year of splicing flexibility. Splicing flexibility is the halfway house between price regulation, as the Commission has always done it, and nondominant and deregulation. So it's not deregulation, it's not a finding of nondominance; it is something partway in between in order to make the markets work.

And also, the 20th year of Vice Cap, sort of an anniversary for everybody, and I'll take it to the purpose today is to put together a framework to assess whether the FCC's special access regulation needs to change. The background for this from my perspective is a special access market that appears in broad strokes to be working pretty well. Demand, as all you know, has increased by leaps and bounds; transactions prices have fallen which implies there's a huge expansion in market capacity.

There's been additional entry in investment in high capacity services from competitive fiber providers, cable, fixed wireless providers. The old collocation triggers on the books are now more conservative than they were in 2001. We have self-supply carriers doing their own, and their volumes of special access don't even enter the market. In pricing flexibility areas, we have entry which indicates that the flexible terms and conditions that ILECs may have are not entirely anti-competitive.

We have technical change, the shift to higher capacity, lower cost, OCN services, the shift to Alcoswitch services, to Ethernet. The said transactions prices have fallen for services, for bandwidths across all geographic areas. In this setting, what would be necessary? What data should we look for? What framework should we have that would warrant a change in FCC regulation?

A modest proposal, a data-driven quantitative assessment, that is, examine the effects of current regulation to see relationships among prices, competition, terms and conditions, and the triggers.

Obtain data on prices, scope of competition in relevant geographic areas looking at MSA threats, wire centers, samples of wire centers.

Look at areas with different degrees of competition and across such areas compare prices and measures of competition and other terms and conditions controlling for relative factors such as density, access lines, customer characteristics, and then use statistical analysis to see what you can say about the relationship between prices and measures of competition controlling for other costs or demand-based factors.

Use these findings to assess current regulation; examine the range first of competitive measures, quantitative measures that are observable; the number and size of collocations, the one we have today; number of bidders for contracts; number of suppliers within a radius of X to determine where added competition no longer results in lower prices and use those competition measures to assess current triggers or to suggest new ones.

Similarly, you can use this data to determine a competitive price benchmark for each area, adjusting prices for other factors which determine costs and demand, and compare estimated competitive priced with actual transactions prices across price cap areas, across pricing flexibility areas, rural areas, urban areas, and see where current regulations may be deficient.

Obviously, objective empirical analysis is going to be difficult. The data is notoriously imperfect. You have to have data from everybody, not just from ILECs or from other specific licensed people; measuring terms and conditions for different special access services is difficult. Holding other costs and demand characteristics constant across wire centers is very important and very difficult to do; nonetheless, this is the sort of data- driven approach that I think will tell you how successful our current regulation has been.

On the opposite side, there are frameworks that we should avoid: historical market structure? No, simply looking at whether prices are rising or falling doesn't answer the question, whether prices are higher or lower is price cap Phase 1 or Phase 2 MSAs doesn't matter; looking at price-cost comparisons is not a wise one. Price comparisons with other services is not adequate, and looking at price caps based on service-specific TFP growth is a pointless exercise, and let the data speak.

MR. BAKER: Thank you. All right, so I think next we have Bridger. Is that -- okay.

MR. MITCHELL: Thank you for the opportunity to be here and for moving ahead on the issue of special access. Special access is at the center of the broadband economy. A wide range of industries and organizations depend on special access services to carry on their activities, and they pay too much for these services because there is inadequate competition.

In the telecom space, special access revenues are huge. On an annual basis, ILECs' special access revenues are larger, larger than all the switched access plus the entire high-cost universal service fund. The bottom line is that enabling end users and broadband providers to obtain special access at a reasonable price is not only critical to broadband deployment but also to spurring investment and innovation.

Unfortunately, the special access regulatory regime appears to be badly broken. I'll explain this in relation to three issues: First, the FCC's price flexibility trigger doesn't accurately predict where competition exists; second, the price gap is too high and is not just and reasonable; and third, ILECs' tariffs include anti-competitive terms and conditions.

I'll use the remainder of my opening remarks to very briefly describe the analytic framework that will allow the Commission to investigate and address these problems.

The Commission should employ a traditional market power framework as it did in the recent Forbearance Order for Phoenix. The framework has three key components: First, define relevant geographic and product markets; next assess ILECs' market power in those markets, and in order to do this, obtain the data necessary to conduct the analysis. To define special access markets, use the Department of Justice Merger Guidelines criterion, whether a small but significant non-transitory increase in price or snip.

This means that the geographic special access market is point to point from a customer's premise to a customer-designated network point, and for customers with mobile locations the customers set up premises in a metropolitan area.

And for product markets, it means

channel termination products distinguished by bandwidths and protocol, dedicated transport from wire center to wire center, multi-premise termination plus transport service, and Ethernet which is supplied over the same physical transport and termination facilities, but has different employed electronics.

Second, assess ILECs' market power, and the Commission would for each product market identify the significant suppliers in the market, and then use five major indicators to assess market power.

First, the ILECs' market share and actual comparative supply; second, price toss margins as measures of profitability comparing, for example, DS1 and DS3 prices to efficient long-run costs using unbundled network element rates established by the state regulators.

Then look at potential entry, the competitors' capacity to provide timely, likely, and sufficient supply response.

Fourth, the ILECs' economies of scale

and scope, and finally assess ILECs' terms and conditions for those that impede competitive entry.

Now to the data. The geographic unit of analysis, I've said, is ultimately the point-to-point market, but it will be necessary to aggregate these geographic markets, for example, using the ILECs' wire center, or, alternatively, the postal ZIP code; obtain data on competitive conditions in a wire center; measure the ILECs' market share for each product; and estimate competitors' potential supply and supply elasticity. Then screen out from the nearly 11,000 ILECs' wire centers those where effective competition is unlikely, and from the remaining wire centers those with sufficient potential demands to make entry feasible, draw a representative sample of geographic markets.

And finally with these data, assess ILECs' market power in each sample wire center and each sample pair of wire centers, evaluating the five indicators I have summarized.

MR. BAKER: Thank you. Dennis?

MR. CARLTON: Thank you. Hi, it's a pleasure to be here. Now, let me -- since I'm going second I will try and avoid repetition with what Bill said.

There are a few sort of central questions that we're investigating, but there is a threshold question that I wish to point out, and that is whether we should engage in a further investigation about the success of regulation, of the current regulation regarding special access pricing. That is different from the question of given you're going to investigate how well we're going, how would you do it? I simply point out any data-gathering exercise and then subsequent analysis is going to take time and money, and it is a relevant question to decide whether you even want to embark on such an exercise in light of the historical conditions and experience, some of which Bill has mentioned such as -- and although I understand there may be dispute about this -- declining prices as well as changed technology.

But putting aside what the threshold question whether to proceed or not, how that is answered, let's suppose we have answered the question and say we want to proceed and the question then is how. So the question is, what is the goal that the FCC is trying to achieve? And I think it's easy to say how to implement: It's to develop practical and reasonable approaches to using regulation in combination with competition to constrain prices where market power exists -- significant market power exists -- and also trying to have criteria to decide where regulation is not needed.

We all know that regulation has imperfections. We also know competition is not perfect, and figuring out when to use each can entail a cost, if you make error. Ideally, the FCC would like to have "competitive prices everywhere," but they have to recognize that a decision either to use regulation or not, or some combination, will inevitably be imperfect. The implementation of any framework is going to be complicated involving the use of imperfect data that never exactly capture what you want to measure. And even the benchmarking approach, which I think is a desirable one, we shouldn't fool ourselves, will be difficult or could be difficult to implement.

And, finally, I wish to point out the possibility that there are sometimes asymmetric risks to regulation. If you regulate a price too low, you cut investment, you cut alternative arrivals from investing in an area, you decrease the incentive of the ILECs to invest. In contrast, if you set prices too high, although undesirable initially, that can induce people to invest.

Well, what sort of data should be gathered? Some people have touched on this question. It's clear that the relationship we're interested in is the relationship between price and competition, so obviously you have to gather data on each. In gathering data on prices, economists know that it's not list prices, it's transaction prices that matter.

In figuring out how much competition there is in an area, economists know that it's not the number of people who are currently supplying any area, but it's also the number of people who have the capability of supplying an area. Moreover, even if one dobbing has been served, is served by a one supplier, that doesn't mean that that building was deprived of the benefits of competition. There might have been several people ex-ante who were bidding for the right to supply that building.

So gathering data on transaction prices, actual competition in an area as well as potential competition is key.

Are there other approaches other than the benchmarking approach that Bill mentioned? I think the benchmarking approach -- recognizing, though, they have -- that it had difficulties and complications -- it's probably the most promising one. I think there are others that have been suggested that are much less promising.

For example, suppose you look at the price-costs margin as an indicator of market power. First, that's hard to do, hard to estimate marginal costs; second -- because you'll be using typically standard accounting data -- second, especially in this industry, you're likely to find [price in excess of marginal cost in many instances. Does that mean there's market power or impermissible market power? Just remember, if you find market power for one of the ILECs, you're likely to find it for one of the rivals who are complaining. So you should take that into account, and that should give you some skepticism about its value.

What about using the Merger Guidelines? Well, the Merger Guidelines are set up to determine whether after a merger prices are going to go up. Even there, market definition is regarded as very crude a beginning, but the FCC is not interested in answering the question that the Merger Guidelines answer: Will price go up? The FCC is interested in answering this different question, a competition such that they constrain prices in a particular area as much as in other areas that are recognized to be competitive.

So my sense is these alternative approaches will just fail. The Merger Guidelines are not set up, as I explained in an article I wrote in 2007 to address the question: Is the current price above competitive levels? Instead it's set up to answer a question about mergers, a SNIP test, and I raised the price by 5 percent above current levels is not the right test, and, therefore, my own view is that the FCC should understand a more detailed gathering of the data is important to relate price to concentration and measures of competition, and to decide whether in particular areas, using such studies as a benchmark of a particular area exceed reasonable pricing.

Thank you.

MR. BAKER: Now, final, Lee?

MR. SELWYN: Thank you. I appreciate the opportunity to be here and to discuss these issues with you. I want to say first at the outset, I fully support the analytical framework that Bridger described. I'm not going to spend any time on it right now.

I want to address specific aspects of the issues that I think the Commission needs to be focusing, and those relate to competition, triggers, and price caps. And my selection of these three is only because of the limited time that I have at this point.

Let me first talk about competition. The presence of some competition does not a competitive market make. What makes a market competitive -- and I'm speaking here of effectively competitive -- is that the competition that exists is sufficient to constrain the dominant carriers from raising prices to the point of producing excessive profits and excessive price levels in an economic sense.

What conditions will need to prevail in order for a market to be competitive? First, competitives will need to confront a relatively high supplier elasticity; they will need the ability to respond quickly to a significant price increase or to a sustained level of high prices.

Second, that the price-cost relationship cannot be maintained at excessive levels by the incumbent because, if they are and if a competitor confronts realistic opportunities to expand capacity, we would expect those to drop. So if we can examine supplier elasticities and price-cost relationships, we can learn a lot about whether the market is or is not effectively competitive.

With respect to triggers, the problem with triggers as they have been adopted in the case of price inflexibility, is that there is no particular relationship between the triggers adopted by the FCC and the presence of an effectively competitive market. In fact, the triggers themselves really have very little to do with competition. Indeed, they almost are inverse to competition.

The presence of a collocation arrangement for a competitor is indicative not that the competitor has placed its own facilities into buildings but rather that it has dependence upon the incumbent's facility. A competitor would not run its own facility into a collocation, but it would run special access services that it leases from the incumbent into the collocation to ultimately interconnect it with its own network.

The Commission based its analysis or its selection of the triggers on some sort of predictive judgment that did not quantitatively relate or test the relationship between the presence of the necessary threshold level of collocations and ability of the market to develop in a competitive manner as I've described it. Moreover, the Commission never looked back even shortly after the triggers were nominally satisfied in the pricing flexibility case. The number of collocations experienced a significant drop-off, and we will provide some data in the record to support that statement, and I'll talk about it more later.

Finally, I want to talk briefly about

price caps. Price caps was a very laudable approach to regulation because it was intended to provide the dominant providers, the dominant carriers with incentive to exceed industry productivity growth trends, and to the extent that they could do that, they could retain a portion of those gains for a limited period of time.

They were also, however, expected to flow through some of those gains to consumers and to the extent that they actually exceeded it. The Commission intended to periodically examine the price cap system to see if it was specified correctly and, if not, to take corrective measures and did so several times during the 1990s.

In competitive markets, it is unrealistic for any one firm to expect to be able to retain indefinitely the benefits of an efficiency gain in the form of additional profits. In fact, in competitive markets, what happens is that an efficiency gain by one firm will ultimately be mimicked by its rivals, and that will then cause the excess profit to be short-lived.

A periodic price cap review essentially accomplishes this competitive outcome. I don't think that the supporters of price caps 20 years ago when the plan was originally conceived would have expected the present arrangement where most of these features have been eliminated; essentially, it's basically been let loose without any examination review or safeguards.

MR. BAKER: Thanks to all of you for starting us off in a very interesting way.

We want now to talk about four different areas, and the first is of analytical framework. We'll start out general, and we'll get into a more in-depth theory discussion in some of the later areas. And the Commission's rules, you know, about price caps and pricing flexibility, and volume in terms of counts, all the things we have in our rules for special access services, are intended to ensure that the ILEC sets the special access rates and terms and conditions that are just and reasonable and not unreasonably discriminatory. And what we're talking about is analytical framework for thinking about that.

Now I guess I want to start with Bridger and Lee. And what I'd like to do is take off from something that Dennis said about the imperfect data that we would have in any approach that we may apply and ask you to defend the analytical framework you all proposed in a little more detail, but to explain sort of how it -- why it's the best approach, you think, taking into account both are desired to avoid mistaken inferences -- and we don't want to regulate when we shouldn't or fail to when we should -- but also the administrative practicality.

And so this is really a chance to reflect on what Dennis and Bill had to say as well as explain a little more the views the two of you had.

And, Bridger, however you'd like to divide up the time, that'd be great.

MR. MITCHELL: Let me take a stab, and let Lee jump in.

Our view of the basis for an analytic framework is that whether I like rates and I like terms and conditions are just and reasonable needs to be tested against what a competitive market would produce. And since we don't have a competitive market now and special access, we don't have the opportunity to observe a competitive price, and there's no way to make that comparison directly. So that does get us into, inevitably, collecting data and analyzing market power. And, as I've said, the traditionally market power analysis is the appropriate framework for doing that, and it's one the Commission has recently applied in Phoenix.

Now, that's where the Department of Justice SNIP test really is relevant because it helps to clearly define that was separate geographic and separate product markets and which groups of products belong in a single market. Whether it's a merger or whether it's regulation, the definition of markets comes out of that.

Now, as far as data collection is

concerned, there is a need, of course, to be practical because the market definition would tell us that geographic markets are individual premises or buildings or sets of buildings where customers need connectivity between them, and doing that analysis is potentially possible for one or two, a small number of urban areas, but as a nationwide approach it needs to be boiled down to something more manageable; and yet, at the same time conditions are highly dispersed across -- disparate across metropolitan areas. For example, conditions here in downtown Washington are very different from West Virginia, and yet those geographic areas all fall within the metropolitan statistical area.

So a wire center approach or possibly a ZIP code point of aggregation is, we suggest, both relevant and practical. Much of the ILEC data organized by wire center, so that should not prove to be a huge barrier in terms of collecting data from the ILECs.

MR. BAKER: And the -- if we attempt to

measure market power, are we required to think about market power the way the horizontal Merger Guidelines do in the sense -- which is essentially will the conduct in the future allow additional exercise in market power? Or can we analyze market power as it is today by looking at market structure? And I take that to be some of the points that the ILECs are making.

Lee, jump in.

MR. SELWYN: Sure. You know, obviously, we're concerned about the future, but, you know, the past is indicative of the future. We have been looking at a condition in this marketplace for, I guess Bill said, reminded us it's 10 years since pricing flex went in, and it's about 8 years since the old AT&T filed a petition for a special access rulemaking along with the ad hoc committee which supported it shortly thereafter. And during this entire period of time, we've seen very, very little change in the total number of competitive buildings in -- nationwide.

And, in fact, there's been some

retrenchment because of the mergers of AT&T and FBC, and Verizon and MCI. A number of companies have gone out of business, collocations have gone down. So it seems to me that, you know, it's almost a cop-out to say let's ignore the past and worry about the future when we can learn so much about the future from the past. There is no a priori reason at this point to expect this condition to change materially anytime soon. And we have 10 years' worth of experience, and in those 10 years we have not seen the kind of competitive entry that we would expect.

So, you know, what does the market power approach teach us? It teaches us something about the condition in the marketplace; it teaches us something about whether or not competitors have been successful in constraining ILEC prices. If competitors have not been successful constraining ILEC prices, that tells us this is not a competitive market. We don't need a lot of the head count type of details that the ILECs are demanding because, quite frankly, even if we found out that the number of lit buildings instead of being in the low single-digit range was in the mid-single-digit range, what would you do with that information? You'd still ultimately want to find out if that is a level of entry that's sufficient to constrain price, and that's the only question that needs to be asked.

Market power is a good indicia of the success of competition. And these kind of head count approaches that the ILECs have been supporting and claiming for a long time if you can do it one place, you can do it anywhere, that's all well in theory, but as a practical matter, CLECs can front very low supply elasticity, they cannot respond quickly, and the ILECs have been responding to that condition in their pricing.

MR. BAKER: There are a couple things that confuse me in your answer. So one of them is, are you saying that because we don't see any -- much actual entry, therefore, there can't be potential competition constraining prices?

MR. SELWYN: No, I'm not -- I'm saying

that we've been hearing about potential competition for a long time. It hasn't happened. I mean, at some point one has to come to the conclusion that, gee, maybe these predictions have to be revisited. There's always the potential for something to happen, but I've yet to see any solid explanation for why conditions that have prevailed for a decade would undergo a material and radical change any time soon.

MR. BAKER: And just to tie this down, in theory one might say, well, you haven't seen any actual competition because the prices being charged are competitive, that potential competition is actually constraining the prices to be competitive so there's no room for the entrants to come in and make money. And I take it you don't believe that, so why not?

MR. SELWYN: Well, that's sort of circular. I mean the notion that we should be -- and if we start out with the assumption that prices are competitive, you know, then we can prove all sorts of good things. The point is that, how do you know that prices are competitive?

Well, that begs the whole question that we're addressing here. If you're trying to look at conditions in the marketplace, if we -- it seems to be the first question is all price is competitive. Well, how do you determine that? Well, you have antitrust type of tests: Profitability tests, SNIP type tests, supply response types of tests. There are any number of indicia that would lead one to draw conclusions about whether or not existing price levels are competitive.

The point is that -- and we pointed this out in a declaration that I submitted earlier this year -- that if anything the availability of special access services to complement owned facilities and with building by a competitor actually increases its ability to compete and its ability to invest, so it's just the opposite: If you make special access so prohibitively expensive, then the value of any one firm's own network of lit buildings is constrained to be so small that it has difficulty competing. It needs to complement that in order to provide the same level of connectivity that an ILEC provides. If it can't do that, it can't compete.

MR. BAKER: And it changes the question slightly. What do you make of the suggestion that we can't use the Merger Guidelines approach to analyzing market power because it's asking the question -- I don't think you directly answered this -- it's asking the question will prices go up after the merger when the question we wanted to ask right now is more akin to a question one might ask, you know, in a retrospective analysis like one does in (inaudible) cases, had placed already increased to the level above the competitive level.

So, do you have any views on that?

MR. MITCHELL: Yeah, well, actually the SNIP should be applied at the competitive level, not at the monopolist price level. So that already needs to be reset down to what would be a competitive level in terms of defining the market and asking whether consumers would either leave off purchasing or would switch to another supplier, to a different product.

So, yes, I think the basic outline of the merging guidelines framework is applicable.

MR. BAKER: But then it's got a --

MR. SELWYN: Let me just -- let me just -- you know, the point is you're absolutely right. The Merger Guidelines raise these questions in the context of evaluating mergers. That doesn't mean that these questions aren't also valid for other purposes. They are valid for evaluating mergers; they are also valid for evaluating market power, as a general matter.

MR. BAKER: And I've got a follow-up with Bridger on if the -- if we have to apply the SNIP test at the competitive level, how do we know what the competitive level is independent of doing the kind of price analysis or something like that, that Bill and Dennis are proposing? Or is that what we have to do?

MR. MITCHELL: You have to use something

like the data that you have available, and we don't yet have the competitive price, so it's not possible to fully carrier that out. But even at the higher level of current market prices, you can ask whether customers have substitutes sufficient to cause them to leave the market and get to a larger definition of product.

MR. BAKER: So essentially you're saying, in effect, we're not -- I'm going to put -- how do you respond to this? This is -- I'm going to say something that isn't quite safe, but that the -- one objection might, to using the SNIP test in this current setting might be the claim is that the firms are already exercising market power. We might be subject to a cellophane fallacy, and are you all saying that, well, if that were the case, meaning that at the high price we already have a great deal of substitution from rivals, especially going up to the place where we see competition.

But Lee was emphasizing, well, no, we haven't actually seen entry or new competition in the CLECs. So is that -- that we can't -- we're not in a situation where price has risen above and -- I mean, I'm sorry, we're misled by using the Merger Guidelines approach or because the danger is that we might -- were we to apply a Merger Guidelines approach to market definition, we would be including competition that constrains now, but didn't at the earlier competitive price. And is your position that we avoid that danger by virtue of the fact that we see that there hadn't been much entry?

I know it's kind of convoluted, but I think you follow what I was asking.

MR. MITCHELL: Well, starting with the prices and the observed consumer behavior, we can get some handle on how much demand elasticity there is, either for on elasticity or substitution to other products. And I would agree that, ideally, you would ask that question again at a lower price, and if you could determine it at the competitive price. But the data we have should at least provide a strong basis for defining the markets now.

MR. BAKER: Maybe we'll switch over now to Bill and Dennis for you to comment on both, you know, what Bridger and Lee had to say, but don't forget my initial question about what's practical. And I'd be particularly interested in hearing about how you think we can get done Bill's data, you know, price analysis, you know, in our lifetime.

MR. CARLTON: So let me respond to a -- let me first respond to what Bridger and Lee were saying about the Merger Guidelines, and then try and directly answer your question.

I think your questions are exactly on point that about how difficult it is to use the Merger Guidelines in a Section 2 case. The Merger Guidelines weren't designed to be used in a Section 2 case to ask the question of prices above the competitive level because, if you think about it for one moment, if you know the competitive level, you can answer the question immediately. You don't need to do a market share analysis to say, oh, I'll do a SNIP test, can I raise the price by, say, 5 percent above this number that I know, and what's the market share? And if the market share is large, then I'll conclude that prices are above the competitive level. If you already know what the competitive level is, you're done.

So the difficulty of using the Merger Guidelines in a Section 2 case is precisely that you don't know the competitive level. And as I understand one of the central inquiries here, it's to ask if I'm in some region and I'm not sure whether it's competitive or not, what is the competitive level? So the Merger Guidelines, just as a logical matter, can't answer that question. To calculate the market shares you need to know what the competitive price is.

So what's the way to proceed? The way to proceed is really practical. The use of market shares are useful only if hey are good predictors of price in some way. That's why we calculate market shares. And let me emphasize, even in the

Merger Guidelines at the Department of Justice, people understand market shares are just the first place to begin. There's where you begin the analysis, you don't end the analysis, a very crude analysis.

What you then go on -- and this is what fits into what Bill is saying -- if you want to gather data on prices, and by that would be transaction prices, and then compare it to, you know, holding constant, you know, conditions -- I'll come back to that in a moment -- to the amount of competition, you have to measure the amount of competition in some way. And you can measure that by how many people are serving a building, how many people are close to serving the building, how many bid on serving the building. And if you don't get that data, if you don't have that other data, there's no way you can answer the question of what the right definition of a market is.

And what do I mean by "right definition of a market?" I don't think markets can be either precisely or, you know, precisely defined very carefully, you know, delineating a sharp line around products. Market definitions are useful when, when you calculate their market shares they're somehow predictive when you look at a data set. So when you look at a data set, is it the case that in the areas where there's less competition, however I'm measuring it -- maybe by market shares, maybe by number of people, maybe by size of people, maybe by identity of people -- by "people" I mean suppliers -- is there some prediction between those measures of presence and price? If there is, then that's what I'm looking for; that's what the FCC would be looking for.

Maybe there are some market shares that work better than others when you define markets in different ways. You can't -- and since one of the central questions here is going to be -- and I agree an interesting question: Does potential competition matter? How much and let's suppose -- I agree that the dispute about there may be -- well be a dispute about that. You should test that, so you got to get NS information about that.

So then that leads back to the harder question. The hard question is -- and it's useful I think to separate the data-gathering and relationship of price to concentration exercise from the exercise -- what, then, should the FCC do? You can gather a very detailed database that you then can do these analyses on. And I'll just put as a footnote, endogeneity of participation is something, obviously, econometrically, you'd had to worry about. But putting aside that, once you've done this very detailed analysis, and, as Bill said, adjusting for other factors, that's how to do cost factors density, and in an industry like this other demand services, okay, you'd have to adjust for.

But let's suppose you've done all that and suppose you're pretty -- you'd think you have a good model that predicts the competitive price after you adjust for everything, then what should the FCC do? It seems to me for practicality you're going to have to say to yourself: Well, either I'm going to have to construct this database -- which I assume would be burdensome -- for every time I had a hearing, or maybe there is some shortcut. Let me now check the data I have to see if I could do a shortcut. I understand if I had all the data what I'd be doing, what triggers I would use, what -- how I would make predictions. Is there anything I can do and not do -- make too many errors?

For example, if I just looked at the number of people who would bid for a building, or if I looked at how many miles, how close someone is to a building, some of those good enough proxies that they allow me to substitute for the full analysis, because, obviously, at the end I understand it's going to be costly for both the parties involved in a proceedings of the FCC.

MR. BAKER: Let me come back to the market definition where you started and -- because I wonder whether your argument really goes too far, at least -- I don't -- maybe you think this, but the way I heard it, it comes close to saying we can never define markets in monopolization cases, you know, independent of our communications role here where the market power was retrospective; that, and yet in those settings, we do conceptually something that some people think might work is to think not -- is to reverse the question of the Merger Guidelines and ask if price were to fall a small amount, would the -- you know, how will the buyers respond and how -- rather than if prices were to arise a small amount.

And so, I guess I should ask, do you agree that we can do market definition in an operation settings, and, if so, how do you do it?

MR. CARLTON: Got it. One, that's a very good question. Two, that's what I talk about in my article in Competition Policy International, and I do explain that it's extremely difficult to apply an analytic framework like the Merger Guidelines to do it precisely because you have to raise -- the SNIP test would be above the competitive price, which you don't know. And then you're involved with circular logic.

So then what do you do? It seems to me the best thing you can do is try and understand who a supplier is who you think have similar costs, or perhaps do, define them as possible markets and calculate market shares, but then -- and this is the key thing -- you have to remember what we are using market shares for, and if they have some predictability as to the competitive consequences of either a merger or higher concentration in one area than another. And it's the econometric confirmation, quantitative confirmation that you'd need.

And if you do it quantitatively, that's great. If you can -- sometimes you may have to rely on what your clients tell you if you, in the absence of data -- but that's the way we typically do market definition. There's nobody who applies technically the analytic procedures of the Merger Guidelines in a Section 2 case.

Now, I -- in the article I won't go through here, there are some exceptions you can give if you look historically over time in precisely the cases you were talking about, if you observe sometime cases where prices fall. But, by and large, it's very hard to do.

MR. BAKER: So then my final question for you. I'm just following up on this -- the -- your proposal is, essentially, we test how well the market shares, the candidate market shares work, you know, in predicting prices.

Now, you and I both know that often the data aren't informative one way or the other, that the (inaudible) can be large; that if you were to attempt to measure that kind of relationship, you know, you might say I can't tell. So at that point don't you have to rely on relationships between price and market shares that you know about from other industries, perhaps, or in general? Or are you left with do nothing because you can't -- you can't -- you can't know how that -- how the relationship works in this particular industry?

MR. CARLTON: You're in a tough

situation if you're in a position in which in your industry you can't find a relationship between price and any other candidate markets. Then what you have to go on are either what your clients are telling you or, as you say, relations you see from other industries. The difficulty with other industries is they better be somewhat close to this one, otherwise know that the price concentration rate relationship differs enormously across industries because of the characteristics of those industries.

But, certainly, one industry you'd want to -- if you do take another industry, it has to be an industry in which there are large fixed costs, in which there's a lot of technological change that's unpredictable, and in which there's a lot of uncertainty about how the market is evolving. But I think the further and further away you'd get from your particular industry, the more error-prone it's likely to be, and perhaps you should say, what is it about this industry? Maybe these candidate markets make no sense at all if I can't find anything in the data. Maybe I'm doing something --

MR. BAKER: (inaudible) was that you couldn't tell one way or the other. It wasn't like it was precisely estimated at zero. It was imprecisely estimated (inaudible).

MR. CARLTON: Yeah. If you have no idea, you're in a tough situation.

MR. BAKER: All right. Let me turn now to my colleagues and see how they'd like to continue.

MR. STOCKDALE: Dr. Carlton, could you explain a bit for me, you explained why the Merger Guidelines were inappropriate to apply in a case in which you're -- a Section 2 case, as you described it. But even in Section 2 cases, you do have to, in some sense, sort of define the geographic area within which you're going to analyze whether a firm has market power. And it isn't clear to me exactly what you believe the appropriate geographic area is, or how we would determine the appropriate geographic area.

Dr. Mitchell suggested it was point-to-point markets. And what is your view?

MR. CARLTON: That's a good question. I don't mean to suggest that the analytic thinking in the Merger Guidelines are inappropriate in any way. It's just in many cases they are hard to implement empirically. But a specific answer to your question would be let's suppose we've engaged in this large data-gathering ethics by their transaction prices, and I have knowledge about suppliers, not only actually suppliers but the location of potential suppliers. Well, your question is really asking me: Dennis, how -- and please call me Dennis -- actually, when I'm on up here, I don't know, I've called these people by their first names, I don't mean any disrespect. So you call me Dennis, and since we know each other, that's fine.

MR. BAKER: I apologize if I've insulted anyone, too, but we can all be informal here.

MR. CARLTON: Oh, so the precise answer to your question would -- it was you were asking to point for the right number, or.6 or a mile, the short answer would be I don't know without investigating the data. What I would do, though, would be, to answer your question, is exactly to look at how transaction prices differ depending upon the location of potential suppliers by distance. And that would allow me to have a better way of answering your question than, you know, off the top of my head how far do I think you have to be. And that's how I think you would do it quantitatively.

And notice that that doesn't really have you doing these experiments of the SNIP test over the competitive price, which you don't really know. In other words, the beauty of having price data and, you know, candidate markets, and in this case geographic markets is you let the data try and tell you the answer, you know, subject to what John said that, you know, this data doesn't tell you the answer. But if you have the ability to use data, I would think that if there is clear answer, it will come through in the data.

MR. STOCKDALE: And, Dr. Taylor, following up on Dr. Carlton's analysis where I have been told, and I may be incorrect about this, that in many cases incumbents sell special access services under volume and term discounts or under contract tariffs. And I believe you in your declaration cited to the fact that Verizon sells 90 percent of its special access services under those arrangements.

And my understanding is that those arrangements are either set at a study area basis or an MS -- in the case of volume and term discounts are possibly broader -- or in an MSA basis. So if there is variation in the level of competition when the MSA, how do we sort of track particular transaction prices to localities?

MR. TAYLOR: Well, I think the direct answer for it is that you can't because -- that is, you can't link a transaction price for a contract network to a locality. Networks have many localities. I mean, I would, if I were ILEC, I would cut you a contract for dealing with all of your in-points that you are interested in. Some of them may be in price cap territory; some of them may be in Phase 1 and Phase 2. Many of them will be outside of my territory where I served, and I will have to implement them using something else. So the short answer is there isn't a one-to-one correspondence between contracts and any given location.

The second question that you raised was sort of how local are contract and discount prices. My understanding -- and I'm sure it differs by carrier -- at least for Verizon, they tend to be national and/or company footprint. That is, the standard discounts that Verizon makes off of its tariff rates are generally national or total footprint, not necessarily -- they're certainly not wire center by wire center.

MR. STOCKDALE: And if that's the case, then how do we sort of try to connect transaction prices with sort of the number of competitors or market shares, however those are defined?

MR. TAYLOR: Well, again, it's

difficult. What you do, I guess, is you look at prices as they are, the discounted transaction prices that you actually see that are being charged in a given wire center. So part of a contract would be a 10 term in a given wire center. Unfortunately, it doesn't have a unique price attached to it, generally. But, wait now, there's a discount coming off of tariff rates, so I guess it probably does.

So you can associate a price even for a contracted network, a piece of it, with a given wire center and add them up over all of the service that takes place in the wire center. And you can produce something that's related to a wire-center-specific average discount or average price, I think. It's very difficult simply because the contracts are not only across different geographic areas, but they're also across different services. I mean, some contracts call for both 10 terms in transport; some just 10 terms or just transport.

MR. STOCKDALE: Dr. Mitchell or Selwyn,

any thought?

MR. MITCHELL: No.

MR. SELWYN: I think we need to focus on the fact that we're dealing with networks and that what the customer is buying is connectivity. So we're looking at -- we need to look at the market at an individual building level because if the competitor is not in a building, it's unlikely that the customer is going to relocate merely to be able to take service from the competitor.

But, you know, Bill put his finger on, you know, a key problem. The Verizon and AT&T have enormous on-net footprints, and they're in a position to leverage that footprint so as to exclude competitors. He suggested, for example, that Verizon might have different pricing for an on-net deal than a nationwide deal that includes off-net, where Verizon, itself, would be confronted with special access.

Verizon is in a position to make that kind of a deal because Verizon has ubiquitous presence within its footprint. There is no CLEC in the market that is in a comparable position. If you can find a CLEC to making deals only within it's own lit-building footprint, it will have very few customers. Without the ability to supplement that and extend it, the CLEC is essentially not in a position to compete.

So the kind of analysis that is being suggested, it seems to me is really ignoring the network character of this market.

MR. BAKER: All right, I'd like to turn now to our next topic which follows on some of what Lee discussed about potential competition, so what I think one of the definitions from the ILECs called "intramodal competition?" And so I want to start with Dennis or Bill and ask you about that.

In particular, we've been told that a number of factors, if you think about the possibility that competition from CLECs in serving buildings, we've been told that a number of factors by limit the significance of that potential competition, we've heard about the building's distance from the CLECs' fibering, the need for access to streets and poles and buildings, the magnitude of the potential revenue from customers in a particular building, the CLECs' potential problem in assembling customers within a building to obtain scale economies or when potential customers have long-term contracts with ILECs that have purchase commitment levels or termination penalties, and the interest that the customers have in contracting to service multiple locations, some of which might not be near to the facilities that the CLEC has.

So how should the Commission evaluate the possible significance of these factors that might limit the ability of the CLECs to provide potential competition for the ILECs?

MR. TAYLOR: Well, I think the basic answer is to let the data tell you; that is, we may be asking too much of it. There may not be enough variation across buildings or across wire centers to fully answer the question, but to be simplistic, if you find that a building in a given location where there's only one, only the ILEC to date, but there are three carriers who bid to supply that building, and there are five other carriers that have networks within one, two, three, four, and five miles of that building, and we had a rich enough data set that you could say, well, for buildings like that here's what the price came out. For buildings where there were only three such competitors, the price is a little bit higher, holding everything else constant.

And that's the kind of teasing out of the data that you would ask, empirically, what is going on rather than put of the armchair theorizing that we sometimes do, they sometimes do, and you sometimes do, as to looking at what these characteristics are and qualitatively saying, well, we think that's important and, therefore, we're not going to consider networks within 1,000 feet of a building to be "in the market."

MR. BAKER: Now, why would you privilege quantitative analysis based on data over qualitative analysis based, you know, on other information? I mean, if I'm trying to understand, let's say, you know, what the sellers might do, you know, I could do the kind of study described, but I might also want to rely on or what to look at engineering studies of costs or, you know, or what they tell me, or, you know, so why just simply let's look to data?

MR. TAYLOR: Well, I think the reason is go back to the philosophy of price flexibility to begin with. Back in the last century, when we did this, the story was we can't do a market-power test with all of the market share price elasticity with the data that we have for every market that we think is important because if we did that or tried to do that, one, we wouldn't get a specific answer; we would get, you know, it feels like this, it feels like that. And, number two, by the time we got it, conditions would have changed, and we'd have to do it again.

And that is why, as I interpret history, the Commission came up with the trigger, trigger being of all whatever else it is, it is quantitative. I mean you can tell, and there's almost no disagreement, when an ILEC files for pricing flexibility, you know, you count noses and there's no ambiguity.

So there's a great advantage if you can find a quantitative aspect like a trigger if you can then show, as Dennis and I have been arguing, that that trigger is highly associated with price holding everything else constant.

MR. BAKER: So I think what you're saying is that we like quantitative approaches to measuring the state or significance of potential competition because that helps us design rules.

But if the question is not how do we design rules but just how do we measure potential competition, are you agreeing or disagreeing that qualitative information can be valuable?

MR. TAYLOR: I think qualitative information tells you where to look. but if all it tells you is that networks within -- that it's expensive for networks to go the last mile, you have an engineering study that shows that, I'm not sure what -- how you translate that observation, probably true, into a statement about whether a customer in that building has alternatives, has competitive alternatives.

MR. BAKER: Well, perhaps the same way you would do it with that you folks were talking about earlier, with rules of thumb. And so that in general we will assume that competitors, that CLECs can't get into buildings. I don't know.

MR. TAYLOR: That's fine if you have for the rules of thumb that we were -- that the Commission has been using in the past, the triggers, if there is some relationship that you can sew between the rule of thumb and prices that you care about, or a number of competitors or other things that you care about.

MR. BAKER: I guess I lost the logic here because I think that you were saying we -- well, do you have another comment. You're about to -- yeah, okay.

MR. CARLTON: I'll make one comment. I think the answer to your question obviously, you start out with some qualitative understanding of how a market works to even come up with candidate market definitions obviously. But I think what's important here is, you know, I can't tell you -- let's just take example fixed wireless. Is that an important constraint? I like to argue it is; the other side has said it's not. It seems to me that there's a way to answer that and that is have candidate markets, some of which include fixed wireless and then don't and see if it matters. And if it does matter I think that answers the question, you know, subject to doing the study correctly.

So there's no question that quantitative information can be very valuable and confirm your qualitative understanding of how the market works. The difficulty with qualitative information is you're not sure what the empirical significance of qualitative information often is, so if someone says, oh, this is a carrier and it's really expensive I can't, you know, I'm not going to do a fancy engineering study but I'm just telling you it's really expensive. You have to say, well, does that mean the price is a tiny bit above the competitive price, a lot above the competitive price? You won't be able to answer that question without a quantitative study. So at least at the first level it seems to me you want to investigate quantitatively if you go down this route the presence of other possible suppliers, like fixed wireless or, you know, it was suggested earlier by these questions, how far away do you have to be before it really is a constraint that you should take into account or not.

MR. BAKER: But I'm still unclear on something. So we have what we're calling quantitative and qualitative information. And quantitative information we're talking about doing something like a study, just for the purposes of argument, the study that you were kind of proposing. Run regression of price against some measures of market share. I mean, of the features of the market that might be appropriate and see what the relationship is. And for qualitative information we're talking about looking at -- some of them might be engineering studies that measure the cost. Some of it might be ask the market participants, either -- but that could be a survey. It wouldn't have to just be a qualitative anecdotal kind of asking. So, you know, there are various kinds of ways of collecting both sorts of information.

And I think you would agree, but I guess I'm not sure, that it's possible that qualitative information could be highly probative and persuasive to you or not. And it's also possible that quantitative could because you could have high standard errors or, you know, precise estimates. So in that sort of a world, why shouldn't we be also looking to the extent possible with both types of information and -- and I'm going to add one more thing -- let's suppose that one type of information is much more burdensome to collect than the other. Shouldn't that be a consideration in how we undertake our study?

MR. CARLTON: I think there are two parts. Right? The decision that we'll ultimately adopt should depend upon the burdensomeness of the collection of the data. There's no question. But as I said earlier there are really two parts I think to your decision process. One is sort of really what's going on. And then second, given what's going on and in recognition of the fact that it may be very expensive to always figure out what's going on, are there any shortcuts I can take?

MR. BAKER: (inaudible) first place.

MR. CARLTON: Yeah. So let me go to the first one. I think in the first one it's very important. I think an important question here is whether -- this is an example. Whether fixed wireless, does it matter or not? And, you know, the ILECs say yes. The non-ILECs are saying no. Data analysis can answer that question. Should it? It seems to me we are going down the path of trying to figure out should we change what we're doing in special access? That does seem like a fundamental question, and I think we can only answer that question by doing a data analysis and getting a quantitative sense of how important those other suppliers are in constraining price. And I'm not sure qualitative analysis would suffice. Now, that doesn't mean that I would say that qualitative analysis isn't useful. I mean, basically both are useful.

MR. BAKER: But the burden is not -- is the burden only relevant in deciding what rule to apply? Or is the burden on the parties and on the Commission relevant in a setting how to conduct the analysis in the first place to set up the rule?

MR. CARLTON: Yeah, so I think -- I think the very first question is do I want a do the analysis. Now, because it's decision theory you've got to do it, you know, sequentially and look backwards. So that's what I've been doing. So the first question is do I want to do anything? The second question is if I'm going to do something, what should I do? And the third question is once I've done it and found out, how should I implement it in a way that's reasonable. You've got them backwards.

Okay. Now, obviously you have to have some priors in order to answer the question. You might ask where do those priors come from? That's a decision theory question. But if you're at the level of which you're trying to find out what are the fundamental issues that maybe I can get proxies for, you know, have them decide to do this study in the first place. It does seem to me this is really a central question. And it's such a central question I don't see how you would really want to go forward with the data analysis unless you gather data on, for example, the importance of fixed wireless because that's going to, I assume, make a tremendous difference. And you know, if you just look at what's happened over time, my understanding is that fixed wireless is becoming increasingly important so that, you know, that's something you want to pay attention to.

MR. BAKER: So let's switch to fixed

wireless and cable providers, both of which we have been told may be sufficiently close substitutes for special access services supplied by the ILECs to prevent them from exercising market power. Or maybe not, but that would be, you know, a question. And so can we do -- I guess -- should we evaluate the possibility of the same way whether we're thinking about (inaudible) to the buildings and/or cell tower backhaul. Is it the same analysis?

Either one.

MR. TAYLOR: It seems to me that it's not necessarily the same analysis since the customer characteristics may be different. May be different in those cases. I mean, we do have fixed wireless in very urban areas from building to building and my understanding is that among the wireless carriers there is a lot of fixed wireless out in the boonies from tower to tower. So there is a different characteristic. But the nice thing about this particular example -- and you can throw cable into it, too -- is that there is alleged to be sufficient difference across geographic areas, across parts of MSA, across wireless centers, that you may find wire centers with a lot of fixed wireless and a wire centers with a little bit. And you might find urban wire centers with a lot and rural wire centers with a lot, or something like that. Which gives you the variation that you need in order to reduce the standard errors for the estimates that you're trying to make.

MR. BAKER: Anything else? Then, why don't we switch to Bridger and Lee. And we'll see if you have any comments on this area that we've been talking about.

MR. SELWYN: I've been elected. A couple things. First, Bill suggested that triggers are good because they're easy to measure. And that, unfortunately, is not a sufficient reason because triggers have nothing to do with -- particularly co-locations I should say -- have nothing in particular to do with the competitiveness of a market. In fact, as I suggested earlier, it may be just the opposite.

They are, if anything, indicia of dependence of rivals on special access.

More to the point, he suggested that they were easy to measure. But in fact that turns out not to be the case either because the only time the FCC ever measured co- locations was at the point where the application for pricing flexibility was considered and it never looked back to see what happened after that fact. I actually have some statistics on this and will provide this. But in several 270 -- in Section 271 cases that occurred following the applications for pricing flexibility, data was provided in response to information requests to interrogatories on co-locations. And let me just give you one example.

In New Jersey, the vice president of Verizon for New Jersey testified initially that there were a thousand co- locations in New Jersey. And I submitted testimony in that case on behalf of the New Jersey Rate Payer Advocate, and in the course of it propounded several interrogatories.

Among the interrogatories we raised were how many of those co-locations are in arrears? That is where the CLEC has not paid its bill currently. And Verizon responded at the time that 232 of the thousand co-locations that he had mentioned were in arrears. We asked how many companies had gone into bankruptcy. He indicated that nine companies had since filed for Chapter 11. We asked him how many disconnect orders had been received and he advised us there were 391 pending disconnects. We also asked him whether any of the disconnects were in arrears so we didn't want to double count. He said none of them were in arrears. So, in fact, of the thousand that he talked about, only about 62 percent roughly were essentially gone or about to be gone.

We have similar kinds of data from Minnesota, from the District of Columbia, and from Maryland, and they all suggest the same pattern. And the GAO in its analysis also suggests that there was a good -- that there has been attrition on co-locations. So I dispute the fact that co-locations are easy to measure. They're easy to measure perhaps if you measure them once but certainly if you're going to use it as an indicia of competition you need to measure it continuously. And that clearly hasn't been done.

The second issue that was raised with respect to fixed wireless as a substitute, I know a lot has been made about Clearwire's announcement that they were going to use fixed wireless instead of special access because it was cheaper. Now, what's interesting is if you examine the analysis that Clearwire must have gone through, they would have been comparing their costs of constructing a fixed wireless backhaul system against the cost of special access from the relevant ILECs. Interestingly, we've heard no similar announcements of conversion from Moreline facilities to fix wireless on the part of either AT&T, Mobility, or Verizon Wireless. And that doesn't surprise me at all because the kind of analysis, the kind of cost comparison that they would be looking at is not the cost of fixed wireless vis-à-vis the special access price, but rather the cost of fixed wireless against their special access cost. And apparently they have, inasmuch as they're not adopting fixed wireless -- and these are, of course, enormously larger companies than Clearwire -- they're not adopting fixed wireless to my knowledge anywhere. They obviously must have reached the conclusion that the cost of providing their own wireless businesses with wire line backhaul is cheaper than going off into the wireless world.

You know, fixed wireless, cable, we've been hearing -- these are alternate technologies we've been hearing about for a long time. People have tried to use fixed wireless to compete, for example, in the business market. There was a company called Windstar a few years ago that had a fixed wireless strategy and you know, I recall actually talking to someone from them, from Windstar in Boston, because they wanted to sell us service. And the reputation they had was that the service worked great except when it was raining or snowing. So, you know, there are problems.

Cable is not prepared to use its coax infrastructure for an alternative. They're basically in the same position as other CLECs with respect to constructing fiber and they confront very similar kinds of costs.

So I think, you know, the real key factor -- how am I doing on time? -- the key factor here that I think you need to focus on is something I mentioned in my opening comment, which is supply elasticity. It's easy enough to point to individual situations where a competitor has entered the market, but that's not the relevant issue with respect to whether the competitor presents the incumbent with a price constraining level of competition. What's relevant there is how rapidly the competitor can respond to a change in price. If the incumbent is of the opinion that competitors at best can make only a small dent in the incumbent's market, they are not going to respond by lowering their price in response to a small competitive initiative.

I think in one of its submissions -- I think it was Time Warner in this docket who put it this way that they're adding a thousand buildings a year to their network but there were something like 300,000 buildings out there altogether. So in about 300 years they will have completed achieving the same level of coverage as the incumbents. That to be me suggests a very, very low supply elasticity, and I don't see it as presenting a competitive challenge to the incumbents such that they would sacrifice profits in the vast majority of their markets so as to respond to this miniscule level of competition.

One last point on this. The premerger AT&T and MCI during the triennial review actually submitted evidence to the Commission specifically addressing the costs of constructing laterals into buildings which were at that point not subject to competitive presence. And estimates were provided that range from about $60,000 to about a quarter of a million dollars. I think those numbers may have come down a little bit but they have not come down by an order of magnitude. And my recollection is there was some reference to it in an actual broadband plan document that was I think in the perhaps $50,000 to $100,000 range.

Proximity to an existing fiber ring makes entry into a building feasible. It doesn't necessarily make it cheap. You still have to get into the building. You have to construct facilities in the building. You have to deal with landlords. You have to create riser cables, telephone closets for cross connect points. These are expensive undertakings. If there is competitive fiber nearby it doesn't necessarily mean that competitive presence is guaranteed. And to demonstrate this in several submissions that the ad hoc committee has made we provided a map. We reproduced a map of the San Francisco financial district that SBC, if you'll remember them, had submitted that actually showed at the time competitive fiber down most of the streets in the San Francisco financial district but also identified the locations at which they were providing special access service. They were providing special access service in buildings on the streets. On the very streets that there was fiber right in front of that building. And in fact, way more buildings on those streets were being served by special access than by CLEC facilities.

So I would submit that this proximity argument is being overblown. Without proximity you have no possibility of competition. With proximity you are then confronted with a business decision, an investment decision, as to whether you want to drop $50,000 to $100,000 or more to go into a building. And there are only so many you can do at any given point in time.

MR. BAKER: If I could just quickly follow up here. Do I take it that you're saying just to take the logic to its conclusion, that because of the problems with the co-location, you know, bankruptcies and the like, and because of what you know about how the costs of expanding supply for the CLECs and the difficulties they face, we ought to presume that based on this kind of evidence that the triggers aren't working on the one hand, and, on the other hand, that the CLECs aren't going to be good rivals to discipline the highlights? Is that the implication?

MR. SELWYN: I think I would agree with that. We don't even know if the triggers are even valid today based on the criteria that was established by the Commission for Phase 1 and Phase 2 price ability. I don't mean -- the triggers have never been good predictors of competitive entry. And the important question is sort of -- don't take a five-foot view, which is what Dr. Taylor is suggesting, and look at individual billing. Take a 30,000-foot view. Look at the market as a whole. Look at competitors' ability to compete in that market in terms of their ability to respond to super competitive prices on the part of the ILEC. And what you have to conclude is that they do not present a competitive challenge.

MR. BAKER: All right. Well, let me

turn it over to Don to see how many feet up he wants to put it.

MR. STOCKDALE: I think I want to drop it down a little bit, too. And my first question is to Bill. If I took down your comments correctly, you suggested that we should take a quantitative approach and you suggested looking at the number of bids at a building and the distance from fiber rings. I think those were two of the quantitative assessments you suggested the Commission might do.

MR. TAYLOR: Two measures of actual competition that customers in a building face, ones that, in fact, we don't -- haven't made much use of is you simply count noses and look at lit buildings.

MR. STOCKDALE: Okay. So what you want to do is look at number of bids at a building, in the AT&T-FCC and Verizon-MCI merger proceedings, my recollection was that where carriers issued RFPs for connectivity, seeking wholesale connectivity, particularly to serve multi-location customers, that they tended to receive a combination of an offer that would include both what are called type one and Type 2 special access services. Type one is where the wholesaler provides solely over its own facility; Type 2 is where it combines it with ILECs' channel terms in most cases. It seems to me that if we're considering potential competition that what we would be interested in is the Type 1 services, not Type 2.

So are you suggesting here then what we should be looking at is the number of bids to provide Type 1 special access services at particular buildings.

MR. TAYLOR: Well, certainly, Type 1 services are end-to-end competitive and the ILECs is not in the picture. So certainly those are kind of the cleanest measure of a competitive alternative independent of what the ILEC is doing. A Type 2 bid is not without information because the Type 2 networks -- these bids are for serving a building and part of the network. So, for example, the Type 2 part where an ILEC service might come in could well be not in New York, but in, you know, in San Francisco or something at the other end of the network, because there's a range of places where the ILECs, if we're talking about New York, a wire center in New York or a building in New York, a range of circumstances in which even for Type 2 networks that Verizon if it's serving New York has nothing to do with the price that the Type 2 end of the circuit in San Francisco is involved in. So it isn't pure; it's better than nothing. And it's certainly better than I think arguing about whether engineering studies say that it's very expensive, not too expensive, not expensive at all to actually join buildings to networks.

MR. SELWYN: Just very quickly, you know, when competitive bids of Type 2 circuit, that puts the price floor for that Type 2 circuit is what the ILEC charges that competitor. So the notion, I mean, if the prices are similar it's because the competitor has pretty much decided to sacrifice all profits in that just in order to get the type one business. That teaches you absolutely nothing to compare Type 2 prices from a CLEC against the ILEC's special access prices.

MR. CARLTON: Just as sort of maybe a matter of logic or economic theory, that's not quite right. In other words, I think what Bill said is what I feel more comfortable agreeing with. That is the Type 1 is the cleanest experiment. A Type 2 is less clean but you would have to figure out what is motivating the subsequent pricing for the special access in the Type 2 leg. And that I think is what Lee was getting at. He was saying obviously if you can, you know, if you're dependent on someone who is your rival and that rival could raise that price, then it's not going to be informative. I agree with that.

But I also would -- what I interpreted Bill to be saying is you need to know that in order to rule out that it's of no value. And there might be situations where, for example, the special access that's underlying with Type 2 is coming about in a way in which there's no knowledge of the ILEC knowing that you are the rival in that particular area and he's setting it nationwide and he's not able to price discriminate. So I would say the Type 1 seems cleanest, but the Type 2 you'd have to investigate the situation to figure out how much information you can get out of it.

MR. STOCKDALE: Your second point example, Bill, was distance from fiber rings. In the record in this proceeding, some parties have suggested that economic feasibility of a building to a particular building is a function of at least, as you suggested, distance from the building and the potential demand at the building. Would you agree that one way of trying to assess potential entry then would be to examine what are the sort of rules of thumb that CLECs used in deciding whether to -- they're willing to consider building to a building and then try to apply it if we had information about location of fiber rings?

MR. TAYLOR: Sure. I mean, I think that information is useful. I think that will point you or would point me to an empirical analysis which asks, you know, how many bids do we get -- does a customer get in a building that has three DS3s level of demand or is within X-feet of two fiber networks? And with enough variation in the data one could actually hope to ascertain what the individual effects of those characteristics are. It's useful to know that those are important elements for a competitor, but that by itself doesn't tell you whether you've got enough, in some sense, competition at the end of the day. You've got to tie that back to some measure of prices -- of how prices change when those characteristics change.

MR. SELWYN: There's another consideration besides the cost and the potential revenue. The competitor has access to only a finite amount of capital and a finite amount of resources. It's going to be making investment decisions not simply yea-nay. It's going to be ranking the opportunities available to it and determining how best to use its resources. So if the competitor is physically capable in terms of a human, technical, and capital resources of only coming into a certain number of buildings in a given point in time, that's it. Now, there may be other buildings that are theoretically potentially profitable but can't be dealt with in the current timeframe because those resources simply don't exist. And this goes to the issue of supply elasticity. You just can't ignore the competitor's ability or lack of ability to respond.

MR. BAKER: I want to -- I want to have -- I've got -- I want to go back to where Bill was talking about a moment before and ask my same methodological question that got brought up before in a slightly different way based on this. You're in effect proposing, Bill, that we use the -- what the CLEC rules of thumb are as a way of creating hypotheses and test them with the price data. Now, why aren't you proposing the reverse? Use the price data to create hypotheses and test it using the CLEC data. I mean, why is the definitive data the price data?

MR. TAYLOR: Well, I think that's at the end of the day what we're trying to measure here. We're not -- what we're trying to do is ascertain whether the pricing flexibility rules as they sit in the FCC are doing what they're supposed to do. And I would think that the kind of standard we'd like to apply is to look and see that across the different geographic and product markets that are affected by those rules, that the prices that come out of it are somehow close to a "competitive" price. That's why I'm focusing on price. And I'm perfectly happy to take what we know, as well all know as economists, are the criteria that competitors or that I like to use to decide where to invest our resources as a guidepost as to what sort of things we should be looking at. But ultimately I think if we don't take it back to something quantitative like -- gee, this ends up with prices higher than a competitive price or lower, that -- we'll just be arguing against one another.

MR. BAKER: All right. Well, this has been a very interesting first half of our program. And so now we'll take a 15-minute break and all reassemble exactly when the 15 minutes is up and start again. Thank you.

(Recess)

MR. BAKER: Okay, everyone. Welcome back to part two of our workshop. And with the same cast only funnier this time, please. (Laughter)

So I want to spend our next few minutes talking about interpreting pricing evidence and profits evidence. And let's start with Bridger and Lee. Let me ask you all first, we've been told that prices for special access services are higher in price flexibility areas than in price cap areas. And let's suppose that's right. Well, you might interpret that in lots of ways. It could be the firms are exercising market power, but perhaps there are other possible explanations.

Higher marginal costs, you know, in the price flexibility areas or the data is misleading. Maybe it doesn't account properly for exchanging mix of products or it's hard to measure prices when there are multi-region and multi-service pricing. Or maybe the price caps are just too low. They're below the competitive levels.

So how should the Commission decide among all these possibilities or any others that might come up? You know, how should we determine what to infer from higher prices for special access services and price flexibility areas and price cap areas?

MR. SELWYN: Let me take a run at that. The prices -- I think, first of all, we have to focus on what constitutes a price because that in itself seems to be somewhat controversial. The ILECs talk about ARPU -- average revenue per unit -- is somehow indicia of price. And what they're trying to do is sort of focus on a unit of service, such as a DS1 and make comparisons across time, across different pricing regimes, price gaps versus price wax, across contract and non-contract services, and also across services of different capacities. And that's kind of like saying that, you know, a seat in an automobile is the same thing as a seat on a bus, or a potential seat in an 18- wheeler and a trailer on an 18-wheeler that doesn't even have any seats in it that you might theoretically put some seats in. These are basically meaningless. If we're going to make price comparisons, we have to compare apples to apples. We have to develop a basket of services and holding things constant make price comparisons which basically means that we can't compare a DS1 price on a month-to-month basis with a DS1 as part of a 5-year, $500 million contract.

That said, here's what we know. We have a consistent practice that when markets are taken out of price caps and moved into pricing flexibility the prices have gone up. And the most recent example of that occurred approximately 2-1/2 weeks ago. And what's sort of interesting about that in the case of AT&T, they had actually filed the pricing flexibility price back in I believe March of 2007. So they were able to -- we've heard over the years about the importance of pricing flexibility is giving carriers the ability to respond to competitive market pressures. And here's a so-called competitive price or what they're purporting to be a competitive price, that they actually established under the conditions extant in March of 2007 and implemented it on July 1, 2010. I guess nothing changed in the competitive marketplace over that three years. So, so much for the dynamics.

The point is that you have to -- the appropriate benchmark is not looking at a price that you have no basis to assume is competitive to begin with. I think we need to look at other indicia and the indicia that we have been suggesting are basically to look at the kind of indicia that are common in antitrust analysis which relate to price-cost relationships and profit earnings levels on services subject to potential monopolistic conditions.

MR. BAKER: Well, I want to get to the price-cost and profits, but before we get to that I want to ask will you give the same answer to a second question about price comparisons? We've been told that prices for special access services have been falling over time and, you know, one might say, well, that's consistent with increased competition, but of course there are other possible explanations for that as well. Costs are falling more rapidly than prices perhaps, or demand is growing and firms have increasing returns to scale. Or maybe it's just the data is misleading again.

So do you want to -- are you giving the same answer to that question? Let's not look at that; let's look at the profits and margins?

MR. SELWYN: The answer I would give first of all is ARPU has been falling, but not price. And the reason for that is that over time more special access services have been -- a higher proportion of special access services have been moved into contract. A higher proportion of special access services have been in higher capacity services, OCN services. It doesn't take very many OCNs to come up with an awful lot of DS1 equivalents. So if ARPU is basically DS1 and you are looking at it across all capacities, across all contract terms, it's hardly surprising you reach that conclusion. Our understanding is, particularly at the lowest D markets, that is the DS1, DS3 level, that there is -- when you hold all of the attributes of the service constant, that prices are not dropping.

It would be, you know, it would be like trying to compare an airline fare from five years ago with an airline fare today ignoring the fact that if you had an airline ticket today you have to pay for luggage and you have to pay for food and you have to pay for this, that, and the other, which you didn't five years ago. You can't make those kinds of comparisons unless you do it more comprehensively. So the core premise of the question is based on ARPU, not on price.

MR. BAKER: So what exactly is not being

-- can you elaborate a little more on what we're missing? You know, what's the equivalent of the luggage fees that aren't being accounted for in the analysis if you're comparing prices in the past to prices today?

MR. SELWYN: Well, if I enter into or a customer enters into a contract to spend a certain amount of money -- $500 million, $100 million, whatever -- over an extended period of time, that customer is accepting a fair amount of risk that the customer does not accept in the context of say a month-to-month type of service. The customer makes an evaluation of whether or not the potential savings that is available to him is worth that additional risk.

Now, part of the problem is that several of our people we've talked to have pointed out, and it seems to be consistent, is that because prices, particularly for noncontract services have continued -- have been escalating, that the objective here may well be not so much to reflect much of anything with respect to price but rather to push more customers into term contracts by making them -- making the course of not accepting those terms and conditions prohibitive. And a monopolist can get away with that because a monopolist can establish a relationship among these various alternatives.

MR. BAKER: All right. Let's switch over to rates of return and questions related to that. So, I would like to frame the question this way. Cost accounting is used in business settings outside of the regulatory context to determine profits for individual services and multi-product firms. And I'd like to just ask you whether the rates of return on special access services in the ARMIS data are more reliable or less reliable as measures of underlying economic rates of return than with the measures that are commonly used in these nonregulatory settings?

MR. SELWYN: I think the issue at best goes -- the question at best goes to precision, not so much to the fundamental character of the use of cost accounting for this purpose. You have plans of various capacities that in the case of a multi-product firm is being utilized for a variety of services. So it's being used for just ordinary, local, intrastate POTS-type services. It's being used for switchbacks. It's being used for special access. Perhaps for other things. And it is not unreasonable to make allocations based on relative use, and in fact, the Commission's cost allocation manuals that have existed now for some period of time have existed now for some period of time have used this as a standard.

I think it's kind of interesting, and I feel compelled to bone this out because we have been hearing this canard about cost accounting, multiproduct firms, worthless data, but less than a month ago AT&T, signed by Gary Phillips and David Lawson, submitted a petition calling for the Commission to suspend and issue an accounting order with respect to a NIKA Tower filing based upon what it characterized as excessive earnings of NIKA and the excess that it was talking about were numbers in the 12 and 13 and 14 percent range. And this is based on category cost accounting in the intrastate switched access category. So it's exactly analogous to the kind of ARMIS data that we've been looking at. You know, I'm willing to concede that cost accounting data may be less than precise, although not necessarily all that inaccurate. But what really struck me when I read this is that from AT&T's perspective, they're looking at it and accepting this extreme precision. For example, the total figure that AT&T gave for NIKA's excess earnings, they provided it to nine significant figures down to the dollar. Now, they didn't put the pennies in so maybe that's the level of imprecision that they ascribe to cost accounting, but they've got it down to the dollar. And for AT&T to argue on the one hand that this is -- the costs are (inaudible), the categorization is useless, and come in to this Commission with a petition characterizing this very same kind of data as producing excess earnings to a far lower magnitude than what we're talking about I think really kind of underscores that what you're hearing is entirely self-serving.

MR. BAKER: Well, regardless of what rhetorical point you want to make, the question is -- the question I want to know is why this is particularly reliable -- how this compares in reliability with cost accounting in a nonregulatory context. Is this -- are these data actually, you know, more useful or less useful than what you see in firms' own kind of cost work that's outside of the FCC regulatory setting?

MR. SELWYN: (inaudible) engage in cost accounting, most large firms in this country are multiproduct firms. They want to make judgments. They may make pricing judgments that deviate from the cost accounting results that they get but the cost accounting results are drivers. And in this particular instance we are looking at results that are so astronomical. And I'm starting to be rhetorical again, but we're looking at triple-digit rates of return. You know, even if you cut them in half they'd still be huge. And I don't think they should be cut in half. The kinds of criticisms that have been on level with this data are essentially at the noise level. They go to precision issues at best. They certainly do not go to the underlying usefulness.

And I would make one other observation relating to this. The very fact that this plan is used jointly for multiple services is itself a source of the incumbent's market power because they have the ability to shift the recovery of the course of that plan around and among these various services. They can sacrifice, for example, profits in what they might perceive to be more competitive markets such as consumer-oriented switched access services and make it up through shifting course allocations to -- or at least revenues to special access.

So, you know, what these figures do is provide a benchmark indicia of the potential level of profit. We can debate separations freezes. We can debate specific allocations. But the reality is that these numbers are just so far away from the authorized rate of return that they can't be ignored.

MR. BAKER: Why don't I --

MR. STOCKDALE: Can I ask a quick question?

MR. BAKER: No, go ahead.

MR. STOCKDALE: Two quick questions. The first is Dr. Selwyn, are you aware whether as part of incumbent LECs' ongoing accounting debate, internally do cost allocations at a level such that they would be able to derive rates of return for special access versus switched access, versus other types of services?

MR. SELWYN: I'm not specifically aware of what they're doing. I do recall some representations being made at the time the Commission was considering eliminating the ARMIS reporting requirements that this data would be maintained in some form and could always be reinstated. But I don't know specific details.

Let me just add one thing for

clarification. The (inaudible) Committee has long supported the use of ARMIS-type rate of return analysis with respect to special access. We understand that there are a lot of concerns about this have been raised. Some of these we consider to be unfounded, but nevertheless we understand there have been concerns raised. And Bridger has proposed an alternate approach to examining price-cost relationships that does not rely on cost accounting data in this sense. And we support that. We think that ARMIS-type results could be used. We think the long and incremental cost analysis of the type that Bridger suggested could be used. All these get you to ultimately the same place and they show prices to be far in excess of cost.

MR. BAKER: Okay. So Bill and Dennis, all of the results get to the same place showing price far in excess to cost and your trivial criticisms don't -- you know, might change the magnitude but not the bottom line. What do you think of that? That's the part where I'm trying to inject humor. It didn't work. (Laughter)

MR. TAYLOR: Not very well. No.

MR. CARLTON: I thought it was funny. Proving economists have little sense of humor.

Let me try and respond. Really, the prior questioning had two parts: One was price-cost and one was rates of return.

You know, there's no question I agree with what Lee said, that you have to do an apples to apples comparison. Otherwise, if you're trying to ask if the price is something foreign. That I agree with. But I don't want to suggest that shifts over time don't matter. In other words, if you're interested in the prices that people are paying for an item, if you're moving from the high priced bundle to the low priced bundle it is relevant. And, you know, you want to focus on both it seems to me. You don't want to ignore either.

But having said that I think from the statements that are filed, and I'm not going to go into any of the disputes, but on the prices as to who is right and who is right, prices falling, ARPUs falling, the prices in this area are higher than prices in that area. Just a few points I think are useful to make and that is that it's transaction cost prices, not list prices that people pay. And that's what you, if you are focused on, asking the question what's happening to prices, I think you should be paying much more attention to transaction prices and not ignoring them.

Second, the list prices in a lot of these areas, the list prices and, you know, I know in some areas they've not changed, but that's because the list prices, the prices at which the ILECs are compelled to service people and the rivals are not. So there's a self selection quality to the list prices. In a sense the price is to serve the highest customers. That in a sense is what generates some of the disputes between what the ILECs say and what the non-ILECs say about pricing. And there was some reference to AT&T's prices going up. Just be careful there.

My understanding is that it's part of the SBC-AT&T transaction there was a requirement that RSBC agree to lower their price. So the fact that they subsequently raised their price I'm not sure is telling you much about competition, it's telling you about the conditions the FCC might have imposed.

And then the final point, because I was actually -- I may have once knew this, I didn't realize this, for example, a city like New York that people thought was pretty competitive, certainly in the downtown area, is not classified as a Phase 2 area so that when you're doing comparisons between, you know, Area 1s and Area 2s, it's not clear you've completely characterized everything, all that correctly.

So those are just some of the points of dispute I think and what are the relevant prices to be looking at and which direction they're going. I do think both Verizon -- I think this is in my statement. Both Verizon and AT&T have submitted data showing that ARPUs are falling, ARPUs by DS1, by DS3 are falling. So the general impression I have is that they are going down. That doesn't mean you shouldn't do as fine an analysis as possible, but it does mean when you're doing an analysis you should focus on the right things which I think are transaction prices.

In terms of your question about rates of return and aren't they through the roof or price-costs, aren't they through the roof, I made this point earlier in my opening statement, if you think the gap between price and what you're measuring is marginal cost, if that's a positive number and you're going to use that as a measure of market power as a trigger, just be real careful because my suspicion is if you did that across most U.S. industry you're going to find a gap. And I don't think we want to say we want to regulate all U.S. industry. Or I wouldn't want to say that.

And second, as I pointed out, if you're using that as your indicia of market power, suppose you applied that to some of these rivals, some of whom, you know, take even a small rival. I bet in certain cases if you did the same calculation you would find price above their marginal cost. Do you think they have market power? So I think there's some -- that just tells you you're using price versus marginal cost as the indicia of market power as the trigger to intervene here. You're not really pointing us in the right direction.

As far as rates of return, rates of return by special access. I mean, as I said in my opening remarks, I mean, there are two common mistakes that, you know, I teach my MBA students and I teach in microeconomics not to make -- focus on transaction prices not list prices, and if you think you can allocate common costs, you're wrong and you're making a mistake, period. And that doesn't mean a firm can't calculate overall what its rate of return is, but if you ask someone what's the rate of return -- and I don't want to indicate that that's easy to do but at least theoretically I could define it for a firm.

Whether I could do it for a product in which there are common costs, I can't do that without specifying the price of all the other related products. And I'm not sure it makes a lot of sense to be doing that. I just don't see how that's a sensible calculation.

MR. BAKER: I have two questions to follow up with what you just asked. On the idea that, well, the CLECs might have high rates of return as well as ILECs, you know -- I mean, high price-cost margins, suppose we had in our heads like just the simple (inaudible) dominant firm and a competitive fringe, and the competitive fringe may be rising marginal cost. So the dominant firm presumably might have a high (inaudible) -- I'm just doing it in my head. You might get it right. The dominant firm might have a high margin and some of the fringe firms might also and some would have low margins. But in that model it's only the fringe firms are price takers. Right? So in other words if we found that -- so by implication, if we found that both CLECs and ILECs all had high rates of return, it isn't inconsistent with the idea that it's the ILECs that has market power and the CLECs are just price taking rivals. Correct?

MR. CARLTON: I agree with that.

MR. BAKER: Okay.

MR. CARLTON: But it also -- if for every rival who is complaining you did the calculation for them and they had -- by the indicia they're using to classify the ILECs as having too much market power, they have the same amount, that should raise eyebrows that maybe there's a funny criteria.

MR. BAKER: Okay. Now let me switch over to the cost accounting which, you know, about the common costs and what you tell your MBAs. So when they go to their accounting class and they learn about cost accounting and they see that, you know, their accounting professor I think might be telling them that firms seem to get some sort of value out of working out profits and margins, or rather at least margins after allocating common costs, is that wrong? Are the accountants just wrong or am I wrong of how I asked the question?

MR. CARLTON: No. I think the accounts would say this. The accountants are in the business of providing information and they want to make sure people understand the information that's provided and they don't misuse it. So, for example, I would be very surprised if I asked -- and I have asked some of our accounting professors, not all of them, what they do about common costs. And they do not -- they would not make a fallacy of telling someone to price at average cost for example or to ignore the distinction between average cost and marginal cost when they're deciding how to price a product, or to get confused about the profitability of entering a business if price is above marginal cost, even though price is lower than some allocated average cost. I don't think, you know, I think the best accountants now understand economics very well and they understand that their role is to provide information in some way such that people who understand economics of business strategy can use the information as best they can.

MR. BAKER: I'm just laughing because 15 years ago when I taught at business school I used to get in arguments with the accounting (inaudible) this economist-accountant thing. Let me turn it over to Don.

MR. STOCKDALE: I have a few follow-up questions primarily for Drs. Carlton and Taylor.

As it first relates to John's first question about the differences in prices between Phase 2 and Phase 1 areas, Dr. Taylor, in the earlier panel at one point you said that it was your understanding that Verizon in its volume and term tariffs, term (inaudible) -- volume and term discounts and contract tariffs basically offered these on a study area-wide or even broader basis. If that were the case, why can we not look at the rack rates in Phase 1 and Phase 2 areas as to compare relative prices given that they're going to be discounted similar amounts in both areas? And if so, won't we then conclude that prices in Phase 2 areas are higher than Phase 1?

MR. TAYLOR: No, I don't think so.

MR. STOCKDALE: Okay.

MR. TAYLOR: Because the difference as I understand it is that contract tariffs are offered and negotiated between the ILECs Verizon in your case and customers. And not -- contract tariffs are available to any other similarly situated person but not every customer is offered every contract discount, I believe. And maybe that's wrong, but the alternative -- the other side of that is not every customer is interested in every contract. That is volume and term. Sometimes you don't have enough volume. If we're looking at downtown Manhattan where people or a building does have huge volume, then it will see large discounts and low prices in such a wire center and such a building. In Peoria, it may not be that. So that's how you get a different --

MR. STOCKDALE: I thought you were going to say that the contract tariff was limited only to a particular MSA so that that would be the difference. If the contract tariff were offered nationwide, then if I were IBM and qualified for it, I'd get the same discount nationwide and I'd still face a different price in Phase 2 and Phase 1 areas because it's all taken as a percentage discount off the list price.

MR. TAYLOR: Well, you buy a contract -- you buy a network -- if you're IBM you buy a network from Verizon or from AT&T. And that includes tariffs in lots and lots of different wire centers, all of whom are -- and the entire network is something that you qualify for a discount on. Now, that doesn't mean that if you look at an individual wire center that there may not be variations in prices across wire centers because a wire center will have some customers who qualify for big discounts; some qualify for little discounts. It depends upon the characteristic of the wire center. If that answers your question.

MR. STOCKDALE: Well, it's enough for now. We have to move on.

Second question. John, I'll speed up the following issue again. I didn't quite comprehend your response. Let's accept that whatever the measure of price we use, prices have been falling over time. And I know that Dr. Sullivan doesn't agree with that but let's assume that for this purpose. It would also be the case, however, that that won't necessarily tell us that markets are competitive. Right? If it were the case that we were in an industry with increasing returns to scale and demand was growing steadily, we would expect prices to fall. And if were the case that there were technological change, we'd also suspect that prices would fall. So how do we determine whether the price decrease is actually indicating that prices are competitive or it's simply the result of increasing returns to scale?

MR. TAYLOR: Well, we don't. I don't think we ever cared that the direction of price changes, up or down, tells you anything about competition. One, for the reason you just named, that cost may be falling and prices either falling faster or slower than cost and you don't know that so you don't know that that's competition.

The other one, of course, is whether the starting price is. I mean, we have been under -- the ILEC has been under some form of regulation for special access since the dawn of time. And all of the mechanisms that have been used don't guarantee that in 2001, the prices will precisely competitive market prices so that prices falling from that might be indicative of increased competition. Prices rising might not be. So for both reasons, the direction of prices by itself doesn't tell you anything.

MR. STOCKDALE: Okay. So if we wanted to -- I mean, so you don't think the trend in prices is at all useful in considering whether or determining whether prices are competitive?

MR. TAYLOR: It isn't dispositive for the two reasons that we've discussed.

MR. STOCKDALE: Dr. Selwyn, you had a comment?

MR. SELWYN: Quickly. In 2001, or prior to 2001, prices were under price caps and the rates of return in the special access category were not that far different than the authorized rate of return which in effect has been more recognized as a surrogate for competitive price. So I think that I guess I would disagree with Bill because we actually have a basis to conclude, or at least we had something that came to a competitive price at the outset of pricing flexibility.

Bear in mind also I think there's been some mischaracterization of our position with respect to these price comparisons because the suggestion -- Dennis made the suggestion about price -- comparing price to marginal cost. Cost accounting results as reported in ARMIS are not marginal costs. They are, in fact, a fully distributed cost that includes the capital amortization, depreciation, return on capital, normal return on capital so that it, again, is not a price to marginal cost comparison. And even (inaudible) based prices that Bridger is suggesting be used as a surrogate for cost, similarly is not marginal cost. It's long run incremental cost which is very different and similarly includes capital and cost of capital.

MR. CARLTON: The fact that it includes someone's allocation of capital charge makes it -- does not remedy the situation. There's an allocation going on and you can't allocate common costs. That's well known in economics and it's really just not even a matter that economists even debate anymore. My only reference prior to price and marginal cost was that the definition of market power is often that price is above marginal cost. So if you use marginal cost, that as your definition of market power, that's also not going to get you very far here.

But I wanted to ask a question or maybe clarify a question Don had asked Bill or maybe I just didn't understand the answer. Well, all right. So you had asked the question about national terms in a contract, and this came up again. You'd asked it before the break and it just came up again, and I just want to make sure. I interpreted -- and Bill, you tell me if I'm wrong -- I interpreted, Bill, the answer to be, yes, there may be national terms in certain pricing, but that doesn't mean there can't be the studies that he was describing. In order to do the studies he's describing, you need geographic variation in the pricing on the left-hand side, the dependent variable, and that's what's going to give you the econometric identification. The fact that there are some terms that are common if you're using a common network or something, that you have a control for. I'm not saying it's easy, but I assume you didn't -- meaning Bill -- didn't mean to imply that the answer to Don's question was, yes, there are common terms and, therefore, I'm not going to do my benchmark study.

All right. Well, I just wanted to clarify that.

MR. STOCKDALE: I guess Lee and then Bill.

MR. SELWYN: I feel compelled to respond to this assertion that economists agree that you can't allocate common costs. And that's certainly true in a static sense. But I can tell you that we have studied changes in common costs, changes in joint costs, changes in capacity-based costs, over time comparing costs to volume of output. And there is a very strong relationship and it proves the fact that if you model this over time, even some of the costs that are considered to be the most common of all which is, you know, at the executive level management of a company, demonstrate a variation with output.

And there are -- I think it is well understood that when you're dealing with joint costs -- and there's a distinction between joint costs and common costs by the way that's understood in regulatory accounting -- then with joint costs such as the cost to plan that is used to carry the switch through a citizen's special services. These costs are capacity driven. They are -- they do vary with aggregate capacity. This capacity can be identified and relationships can be done. And this has been going on for a long time.

So, yes, if you shut out the past and shut out the future and take a single, static point in time, which is perhaps, you know, what you had in mind when you talked to your MBA students, then you have a difficulty. But these issues have come up. They've been addressed. They've been addressed for a long time. We've addressed them. Others have addressed them. And many companies understand this as well.

MR. CARLTON: I disagree.

MR. TAYLOR: One quick second beating the dead horse of ARMIS. You asked -- Jonathan asked what I thought was a very good question about whether these fully distributed costs in ARMIS are more or less reliable than allocated costs that we see in the rest of the world. I would like to point out that at least the allocated costs to special access are probably less reliable than most. My evidence is internal. It is -- if you look at company-wide ARMIS returns from, say, 2000 to 2007 for all companies, those are fairly reasonable. They follow the returns themselves, though I don't believe them, are fairly reasonable internal rates of return that you'd expect for a company. They are not the three-digit rates of return that Lee finds for one particular product of this multi-product firm. So the fact that the aggregate seems reasonable, but looking at one product seems unreasonable, I think is some evidence that there is something specifically wrong with ARMIS among the family of allocated costs.

MR. SELWYN: Or it could mean that prices have been avoiding specific comparable levels in that one category.

MR. BAKER: Go ahead. Bridger wants to take the last right here.

MR. MITCHELL: I just wanted to ride a different horse here to look at profitability and market power in terms of long-run incremental costs which, of course, is the standard that the Commission established for network elements and which many states have actually gone to the effort of quantifying. Those costs include returns to capital. They include the fixed costs of building a new network. They're for an efficient competitor who's entering the market. And they basically measure what it takes to get in and provide service in competition with the ILECs. So they stand as a benchmark that I think is independent of ARMIS, largely independent of the cost allocation problems that plague a historical firm dealing with historical cost accounting. And the suggestion in this analytical framework is not that prices should be exactly equal to long-run marginal costs over market power, but rather that this benchmark provides an important framework, a reference point, for looking at market prices.

MR. CARLTON: I was -- there was -- I believe in the 2000s -- okay -- I think in 2003 or something there was a hearing about TELRIC -- I submitted something on TELRIC. So I guess in part I agree that TELRIC is much better than this allocated common cost stuff. And in order to do TELRIC, you specify in a sense the bundle of services you're going to have. That gets around the common cost allocation problem in a sense, and then you do a calculation. The problem with TELRIC, as I said in my testimony, is that first there are conceptual problems with TELRIC. They don't account for uncertainty in the future of demand and, therefore, they don't account for option value of investment. And then the second is if you go across the states -- and what you said is exactly right; the states implement this -- I went across the states. It is astounding the different depreciation rates the states use. They differ -- I don't remember -- I think it was a factor of ten. And, in fact, they got politically involved in which state legislatures would say, "I want you to use a delta of this number," you know, in a state legislature. So I don't think TELRIC pricing has proved to be a very reliable indicator. Not only is it -- conceptually does it have some economic difficulties, but in feasibility I don't think it works out very well.

MR. BAKER: You know that -- do you have any idea what the difference is between the rates of return that are used in TELRIC calculations and the hurdle rates the companies use that presumably account for the option value of the investment decision?

MR. CARLTON: I don't off the top of my head, but like I say, the only -- what I remember is the depreciation rates used differed by a factor of 10 and that made an enormous difference in the rates of return. But I don't recall off the top of my head how different they are across states.

MR. TAYLOR: One other element with TELRIC is that even if it were calculated perfectly correctly and its incremental costs -- and economists can understand it and decide whether it's good or not -- you're left with the issue of what is or should be the relationship between price and this incremental cost. And that is really what a competitive market tells you for multi-product firms. Now I believe TELRIC says, "Oh well, let's add 15 percent for common costs" or something like that, but 15 percent is what you'd tip a waiter. It's not necessarily what the appropriate range between price and incremental costs ought to be for a one-product firm.

MR. BAKER: And there's no way to figure that out short of allowing the market to decide on all prices and then we just see?

MR. TAYLOR: Well, I -- in my view, that's quite correct, yes, that market price is something which the process of competition is going to tell you what the markup is going to be.

MR. BAKER: So it's never possible to regulate anything using TELRIC? How far does this argument go?

MR. TAYLOR: Well, I mean, it's possible to assign incremental costs of an element, which is not what we're talking about here, but as an element, and require for the purpose of inducing competition from people who would be otherwise impaired if you didn't price it at that level, as one very important view which is what was happening when TELRIC was invented. That's very different from saying, well, what is going to --

what would be the competitive market price of an unbundled element or in this case of an element of the one-third of a multi-product firm.

MR. BAKER: One more short one.

MR. SELWYN: We don't have a competitive market, and we can't base this analysis on the presumption that we do because then we end up with circular reasoning. The point is we have to come up with a set of benchmarks that presuppose we don't have a competitive market. If it turns out that the benchmarks demonstrate that we do have a competitive market, so be it. But if you start with the assumption that the market is competitive, then you can't possibly reach a correct conclusion.

MR. CARLTON: Okay. We're really getting off. I've got to say something; otherwise I think no one will be able to understand what a benchmark study means. I interpreted what Bill said at the outset -- he can correct me if I am wrong. I mean simplifying -- take a place where we think there's competition and then try and use that observation to project after adjustments what the price would be somewhere else where we don't all agree is competition. That's what he's trying to do. And in viewing those adjustments, he's trying to do exactly what I think Lee was suggesting. He's recognizing I'm not in a competitive price. Can I use the benchmark to determine it? If there are no benchmarks, you know, let's go home. But that was the suggestion and in doing the adjustments -- and this, I think, is quite important. It's not just adjusting for cost effects; it's also adjusting for demand portfolio effects because that has to do with how you would cover common costs.

MR. BAKER: All right. So we've got all sorts of difficult empirical studies. We can apply some about accounting and some about pricing that we talked about today. And we're well over into the final part of the conversation, but we were just having too much fun to cut it off. So I think I'll ask, see if Don has some questions to start us off and then we'll also -- and maybe you want to also ask when, you know, after some of the questions we've gotten from the --

MR. STOCKDALE: Well, Don, why don't you start with some of your questions about market structure?

MR. BAKER: Oh, that's right, we should do -- we haven't done the whole other area. You're absolutely right. We're behind on that, too. All right. I have a whole area on market structure I wanted to talk about and I'd forgotten; I had gotten so excited.

The -- so, this is for Dennis and Bill to start out with about market structure. Suppose what we want to do is define markets and analyze market structure, notwithstanding, you know, all the cautions we've heard about that in order to evaluate possible market power. And suppose we want to base market definition solely on demand so that there's consideration. So if we're doing that -- and I want to talk about product market first. Should we be including in the same product market wholesale services provided through all types of special access lines, you know, regardless of capacity and protocol and technology and type of provider, or should we do something different?

MR. TAYLOR: Well, I will take first lick. The first lesson from my perspective is let's look at what the data say. I mean, you've jumped to shall we include DS3s in the same market as DS1s, for example, or whatever. And I get very nervous when we do merger guidelines type, this is in and this is out, this sort of binary zero-one decision in market definition, I think, distorts the notion of the measure of competition that we would get from the kind of quantitative, data-driven, stuff that we're looking at.

MR. BAKER: But let me interrupt because when we do this in, you know, antitrust context, we don't always have -- or we're not always relying on doing this kind of study that you're -- price study you're proposing. First, we, you know, we sometimes would -- usually -- will do it in other ways with other kinds of information.

MR. TAYLOR: I understand. One of the disadvantages of doing that in a market like this is that for some customers, fixed wireless is a perfectly good substitute for high-capacity special access, for others it isn't. And if you're going to look over a geographic area and find some customers of that sort, some customers of this sort, and then draw a line and it says, well, it doesn't quite reach X-percent so fixed wireless is out of it. And that to me is not telling you about what the competitive constraints are in that geographic market because you're ignoring the fact that some customers find it to be a perfectly satisfactory substitute.

MR. BAKER: So if all customers aren't identical, we can't define markets?

MR. TAYLOR: Defining markets the way that you spoke of, of taking products and either sticking them 100 percent in or 100 percent out, I think, is distorting the competitive data in a way that we would not do if we were doing the sort of market definition that we're talking about here.

It's sort of like the differentiated product market definition issues in antitrust.

MR. BAKER: So it's not possible to decide whether cola is a product market because -- rather than all soft drinks because the products are differentiated? And some customers might view lemon-lime as a substitute for cola and others won't?

MR. TAYLOR: If you do the exercise, you'll find no matter how you cut that market that when you increase the price of one, the price of another is affected to some degree whether or not it's "in the market." And then to take those that you've decided are in the market and ignoring those that are out and do market shares and, you know, that sort of thing on those that are in the market is throwing away information. That's my only point.

MR. BAKER: Yes, it's throwing away information. I'll agree with that, but isn't it useful to look at the information that's with -- I mean, sometimes it's analytically helpful to define markets anyway even though you're throwing away information?

MR. TAYLOR: I don't find it in these markets particularly helpful. I mean, the difficulty -- another difficulty, let me say, is take fixed wireless. A question you might ask is, you know, is fixed wireless in the high-capacity market? Well, I don't know. What happens if we raise the price of high-capacity wire line services? What happens if people shift to fixed wireless? And dealing with this one product at a time; I mean, first fixed wireless, then we'll do cable, then we'll do other substitutes, whatever they are, also tells you the wrong answer in the sense that -- that is the answer at the end whether the ILEC has market power or not because the ILEC faces competition from all of them, not just from each of them seriatim. I think if you go back to the raw theory of setting markets, it's not one substitute at a time that you do this exercise for, but it's all combinations of stuff to do.

MR. BAKER: But somehow we manage to decide whether the market is soft drinks or whether it also includes juice and also includes beer and wine. I mean, somehow we manage to get around this problem even without the price study that you suppose we have to do in order to analyze a problem in, you know, an antitrust context.

MR. TAYLOR: Yes, I understand that you do. I guess it's my complaint that in telecommunications and in special access that you're going to run into trouble when you do that.

MR. BAKER: And so you would give the same answer with -- I want to ask the same kind of question with respect to a geographic market, that if we're thinking only about demand substitution considerations, should we be, you know -- how do the following possible markets sound? You know, each building in which a channel termination customer is located, each cell tower in which a backhaul channel termination customer is located, each pair of wire centers served by interoffice transport -- you know, would those be appropriate geographic markets? Or if not, do we go more broadly? How do we answer that question then?

MR. TAYLOR: Well, I will take a shot to begin with. The Commission's habit in those cases is to define the geographic market very narrowly, building point to point, things like that. And then to say for similarly situated buildings and similarly situated points to points, we will combine them and analyze them as a market. So that makes it -- makes the market on which you're doing work larger than a point-to-point market and larger than a building.

MR. BAKER: Right. You're not endorsing the Commission's habit as the appropriate methodological approach?

MR. TAYLOR: Well, I have to say, I have not given the thought to -- the same issue that bothers me for product market I haven't given the thought to what its analog is in a geographic context. It probably would bother me if I had thought it out, thought it through.

MR. BAKER: Well, then my final area

here is about how to compute market shares. So let's suppose that we've somehow, notwithstanding all the methodological problems involved, picked something and called it a product market and picked something else and called it a geographic market. So we have a market. And now we decide we want to rely -- we want to look at market shares. So here's a proposal to react to, just to clarify the, you know, the conversation. You know, when I make these proposals, I'm not trying to say that this is what we're doing. This is just -- okay. So suppose the computed market shares, based on ownership of facilities that are capable of serving the buildings within an area -- in other words, a measure of capacity, you know, rather than a measure of sales like buildings and who leases them. Those are two pieces of my proposal. So how do you react to that as a basis for computing market shares?

MR. TAYLOR: Well, I think my answer would be why don't we look at the data and see what happens for different levels of market share the way you've calculated: Market share based on revenue, market share based on whatever the other reason -- circuits perhaps -- the other reasonable alternatives. And see across wire centers which are associated with high prices, which are associated with low prices, as you hold constant all the other elements.

MR. BAKER: And what are the factors that might tend to lead the -- okay, how to put this. The -- so, yes, the data might tell us one thing and it might tell us the other. What is it about the world that might lead the data to tell us that this is a good market definition and what about in the world might lead us to tell us that no, we should do something different, building counts or, say, or broader areas? I don't know if I've asked that well, but try it.

MR. TAYLOR: Well, all I can do is come back to predictability. That is, if the measure that you have is well associated with the presence of a price above a competitive level -- which we've ascertained in this benchmark study -- or below, it's associated with changes in prices, I think we've got a pretty good measure.

MR. BAKER: So without that kind of a measure, you have no basis for saying that let's say building counts -- someone might say, "Building counts mislead because they don't take into account potential competition, whereas capacity measures might take into account potential competition and it might be better for that reason." You have no basis for making any kind of statements like that, absent the empirical analysis?

MR. TAYLOR: (inaudible) statements like that, as has everyone else on both sides of this issue for a long period of time. And the difficulty is it doesn't resolve anything. Yes, I can see -- I can give you arguments why capacity makes sense. I can give you why -- arguments why share of business inability make sense, why share of capacity within X-feet of a building make sense, and I'm sure Lee and Bridger can give you the opposite arguments. But then at the end of the day, with just those qualitative arguments, you are left with trying to decide what the right answer is in some defensible, objective way. And the history in this docket, I think, has been that's very unsatisfactory to everybody as compared with a measure which is based on predictability and is objective in the sense of the number.

MR. BAKER: And if we were doing merger analysis about products other than telecommunications, you'd feel the same way? Well, if we were -- I'm just thinking applying the merger guidelines. If we were doing antitrust analysis and we were discussing products not involving -- if we were back in soft drinks and beer and things like that, would you feel as though you have no basis for choosing any units for measuring market shares unless you did an empirical study?

MR. TAYLOR: No, there are big differences. In consumer products, for example, beer and soft drinks is easy. You've got register tapes. You've got all sorts of variation in prices. You've got numbers for the types of soft drink -- skill numbers, SKUs or whatever -- stock keeping unit, exactly. I mean, you can do that to a fare-thee-well. You can measure econometrically at a given point in time, price elasticities and cost elasticities. That's a very different world from the one we have here.

MR. BAKER: So you're saying it's easier to do antitrust analysis in our world because you can measure better, or are you saying it's easier to determine the units on which to calculate market shares because it's possible to do the price study that you have in mind there?

MR. TAYLOR: Well, I guess it's the latter, that you can identify prices and variation in prices. You can identify entrants, you can identify competitors. It's perhaps more easy to identify potential competitors without network effects and all of that. It's a qualitatively different animal.

MR. BAKER: Well, why don't I shift over

to Bridger and Lee and see what you'd like to say about any of these questions about what appropriate markets are and how to measure market shares.

MR. MITCHELL: Right. Well, I think we're more on the side of the questions as you've posed them with regard to market definitions, that SNIP tests and the Merger Guidelines do provide a sensible basis for distinguishing products and areas that are in one market and not in another. And that with respect, for example, through fixed wireless, one can look at customer decisions and investments where customers have made those substitutions for fixed wireless as distinct from subscribing to special access, and then ask in that market, "Is that a sufficient degree of substitution to have affected what the price would be if the market were supplied entirely by one firm?" And the -- that's another answer that needs to be had about the preliminary evidence from the data. That not only is generally not and the major suppliers of special access are not turning to fixed wireless for their supply of backhaul.

MR. BAKER: Lee, did you want to add anything?

MR. SELWYN: Let me, you know, focus on a couple of areas. Let me first talk about product markets. You raised the issue of soft drinks and whether cola and lemon-lime soda or beer, you know, are different markets when doing an analysis. Here it isn't even that complicated. Let me give you some analogies. If we think of DS0 as, say, being analogous of bicycles, DS1 being analogous of cars, and DS3 being analogous to buses, and OC3 as being analogous, let's say, to 18-wheelers, and OC96 as being analogous to ocean liners. These are obviously distinct product markets. There's no cross elasticity. There's no real substitution. It's based on the demand that's out there. To suggest that they all should be lumped into one product market makes absolutely no -- it doesn't make any more sense than putting bicycles and ocean liners in the same market.

Another distinction that could be made is between wholesale and retail markets. And this goes to the issue of whether or not, for example, that we should only consider Type 1 penetration in terms of market share. We do not have a competitive wholesale market right now, so that although competitors are offering Type 1 and Type 2 services, their involvement in Type 2 services is really more for the purpose of making their Type 1 services more marketable, more valuable to their customers. They're confronted with a price war from the incumbent. If we actually had a wholesale market where the prices were set on the basis of long-running incremental costs, then analogous to what the Congress had in mind with respect to the UNIs, for example, we could actually distinguish between wholesale market shares and retail market shares. And we could include at the retail level all of the retail sales, including the retail sales that were based on the provision of service using ILEC facilities.

And this has been something that certainly was being done in the context of, for example, residential and small business exchange services in the time when UniP was available.

In the present situation, we don't have a competitive wholesale market with the underlying services and, therefore, it really is not possible to view the retail market as including the share of Type 2 services. So I think that in looking at market shares, we have to focus on Type 1 facilities both for CLEC and for ILEC. And CLEC Type 1 shares are extremely, extremely small. And, you know, I was interested in Dennis' comment about New York being only in Phase 1 of pricing flexibility, and he's absolutely right. And interestingly enough, places like Binghamton are in Phase 2. And to me that sort of underscores the fallacy of the triggers rather than much of anything else because the reason this happens is there are few wire centers in the smaller markets so it's easier to get to the threshold percentage than in the larger markets. It has nothing to do with the level of competition.

When we look at the geographic market, this is where it gets a little messy because there's no question. If I'm in a building that doesn't have a competitor, and the competitors are not seeing their way clear to come into that building, as far as I'm concerned the CLEC share is zero and the ILEC share is 100 percent. And we can aggregate it at the wire center level for analytical purposes, and I don't suggest that that not be done because it kind of makes sense to do that. But you have to interpret the share results very carefully because if we conclude, for example, that only 4 percent of the buildings in a wire center are lit, that tells you that 96 percent of the customers, potential customers, in that district do not confront comparative choices. And what's going to drive the decision as to -- the policy decision -- is a combination of that fact and a recognition that competitors confront extremely low supply elasticity. And they're not going to be able to rapidly respond and enter those buildings in response to a high price or a price increase on the part of the incumbent.

So, yes, we want to look at the data at the wire center level because we need to have some basis to collect it and examine it. But clearly that by itself is not dispositive, whether the share is 5 percent or 10 percent or 15 percent. I don't think you'll ever find any remotely that high. That still tells you that you have an enormous segment of the market that has no competition whatsoever.

MR. BAKER: You talked about the shares of -- what was it, you said a certain percent -- 96 percent of the buildings are lit in certain areas or something like that, and as a way of inferring market power. That sounds like -- I'm sorry?

MR. SELWYN: I said 96 percent were unlit.

MR. BAKER: Ninety-six percent are unlit.

MR. SELWYN: Unlit by competitors.

MR. BAKER: I'm sorry, 96 are unlit by competitors.

MR. SELWYN: Right, which means --

MR. BAKER: Ninety-six percent of those that are lit by incumbents are unlit by competitors.

MR. SELWYN: Right, something like that.

MR. BAKER: And so that's a statistic that doesn't take into account potential competition, correct? And is that a problem with it?

MR. SELWYN: Look, potential competition is a very legitimate consideration, and no where have I suggested that it isn't. But this is why I've been emphasizing supply elasticity because supply elasticity is a quantitative means of assessing potential competition. If you have high-supply elasticity either in the same product market or in a substitute product market where there's high-cost elasticity between the two markets such as, for example, by fixed wireless -- I'm positing. I don't know that this is the case

-- supposing there were high-cost elasticity between fixed wireless and wire line, but both confront very low supply elasticity. That -- you can't conclude that wireless represents a competitive challenge -- price constraining competitive challenge. So we have to -- openly at the end of the day you have to be focusing on price elasticity -- I'm sorry, on supply elasticity -- in all of the candidate product markets. And the way I've approached -- and I believe the Commission should approach -- the issue of potential competition is by focusing on cross elasticity which the Commission has examined and supply elasticity which has thus far gotten very limited attention because that's where you have a basis, a quantitative basis, for assessing potential competition.

MR. BAKER: Would capacity shares capture the relevant supply elasticity that you're worried about? In other words, if you asked -- if you gave a firm's shares based on the -- not their actual sales to buildings, but their capacity to serve them? Or would that overstate the competitiveness of the rivals or would it properly account for supply elasticity?

MR. SELWYN: Well, I'm not sure what you mean by capacity of shares.

MR. BAKER: Well, so suppose we looked at who owned a fiber ring nearby that they could connect to or had, you know, nearby cable facilities, you know, and sort of said, all right, well those firms are potentially able to serve this building.

MR. SELWYN: There's a multipart test here. As I've said before, if they're not proximate geographically, then they're not even potential competitors. If they are proximate to the point where some -- where the construction of a lateral is feasible, then we're still dealing with the investment and time and capital resource capacities associated with providing a lateral. So, you know, the first step in the process is identify those buildings where, at least at a theoretical level, entry might be viably examined.

I'm willing to go beyond that. Then look to the question of, you know, supposing in a given market you find that there are a thousand such buildings based on some proximity measure of the type that Bill has been suggesting, but in a given year, given the capital resources of the competitor, only 20 of those buildings could as a practical matter be built out. That's what's relevant. The other, you know, however many other 980 buildings, you know, are not near-term potential competitors.

MR. BAKER: All right. So in light of the time, we're just going to jump onto the -- you know, our final area and let Don ask some additional questions. And we'll have some questions -- just not an area -- our further questions from both the panelists and from the audience as well. So we're going to include some questions from -- that we've received as well.

MR. CARLTON: I want to make one comment on the last set of questions because I didn't say anything. I'll be brief. We were talking about the Merger Guidelines and using market definition and market shares. The Merger Guidelines are clear that market definition is crude in the beginning, and the new proposed Merger Guidelines have an entire section devoted to empirical analysis. And, therefore, the way to figure out what the right market -- should I include this, should I include potential competition, does potential competition matter -- is to look. And this is what the guidelines say at the empirical analysis. And that's what I interpreted the benchmark studies to be suggesting and in the absence of that, I don't think you can just look back and say, "I think this matters," or someone say, "Nay, I think it doesn't." I think the real question here is can you show me some data where it does matter, where it doesn't. I don't care what you think. I understand it's maybe based on good qualitative discussions with people. I don't doubt that, but I want some evidence that this really matters, and it's really -- the proof is in the pudding, it seems to me.

MR. BAKER: But just to be clear, am I

right that the proposed new Merger Guidelines are not, officially yet, also required to finding markets in every case. Isn't that correct?

MR. CARLTON: Yes. I think it's a good -- well, it's a debate and they're moving away from market definition. I won't get into -- you can read my remarks, what I said about it. I actually think it's good to define markets. It's a good discipline. It is, though, still a crude first step and an empirical-based analysis, starting from market definition, is perfectly appropriate. And that is what I interpret these benchmark studies to be, exactly that those next steps that are required in order to make sure you're not making huge errors by just relying on qualitative information that you have no way of confirming are good to rely on.

MR. STOCKDALE: I have one question of my own and at least two from somewhere in the audience or in the Internet audience. My question is, ignoring for -- and I'll direct this to Dr. Taylor. You raise some issues about the difficulty in defining relevant product markets that distinguish between DS1 and DS3. Conceding that, what do you -- do you think that it is reasonable when we're analyzing competition and the special access markets, to distinguish between channel terms and interoffice transport?

MR. TAYLOR: Yes.

MR. STOCKDALE: Okay. That's my question. Now, here are two from the audience, and I'll just read the first one, so I'm reading it word for word.

MR. TAYLOR: Whoever hits the button first answers?

MR. STOCKDALE: Well, I think it's going to be directed to you, but I just wanted to make clear that it's not my words that I'm repeating here. "It seems the ILEC proposal is not workable" -- I assume benchmarking proposal -- "because of where we start. ILEC price on a MSA-wide basis, so how can FCC measure the effective competition on price? Even if a few wire centers may be very competitive and all the rest in the MSA are not, how could the FCC do the quantitative analysis suggested?"

MR. TAYLOR: Well, I think I disagree with the premise that prices are constant across wire centers in an MSA. That's -- I mean, I imagine if you looked at average revenue per unit in wire centers across an MSA, you would find differences. That's my function.

MR. STOCKDALE: Let me follow up then a little bit on this. Average revenue per unit may differ from MSA to MSA or from wire center to wire center, but the prices that a particular customer faces do not. And so it seems to me that you need to sort of distinguish the mix of customers in a particular wire center and the prices they face. And it isn't clear to me that if it's just because you have a bunch of IBMs in one case that qualify for an 80 percent discount and a bunch of dry cleaners in another case that don't qualify for any volume discount, we should be drawing any conclusions about the competitiveness of the market. Should we?

MR. TAYLOR: Well, it's certainly the case that we, as we said, that you have to control for, among other things, the characteristics of customers. So we're having to hold that constant. Where the variation comes, if there is no variation across customers, I have to think about it; I mean, that's a difficult assertion.

MR. STOCKDALE: Dr. Selwyn, do you want to say --

MR. SELWYN: I'll just make one observation. You know, this is not the distinction between the dry cleaners at one end of the market and the IBMs at the other because large-enterprise customers have very substantial demand for service at the DS1 level or at potentially down the road at relatively low-volume Ethernet, if that market ever begins to become more readily available. You know, a bank with thousands of branches is not -- does not require -- it's got branches in strip malls and it's got ATMs and it's got small branches on suburban streets and towns, and all of those require a service at something approximating the DS1 level. Cell sites are another situation. They're all over the place and for many, that's the level of capacity that is potentially required. So you have to focus not just -- this is not the big guys always having competitive choices and the dry cleaners never having them. This is a case where the big guys have competitive choices in a few locations and no competitive choices in the vast majority of their locations.

MR. CARLTON: I'll have to go back and check. My understanding is that, you know, holding everything constant, say in a Phase 2 area, or it's not true that the price to a building is constant across the geography. But -- so you will get some price variation. But putting that aside, which I think is what Bill said, but putting that aside, it raises the possibility that you might want to collect some data from the CLEC as to what prices they're charging because they're not under any such, you know, filing obligations as I understand it, to see whether you can get any information from the variation in their prices for special access and whether that gives you any information. That's something that we've not talked about, but that's at least something to think about.

MR. STOCKDALE: Would that be a possible metric for a competitive price as well?

MR. CARLTON: Well, in terms of the benchmark study that Bill was talking about, I'm not sure that I would necessarily conclude that whatever CLEC is charging is competitive. What I would assume is that the variation in the CLEC prices across areas you might want to relate to levels of competition. That was my only point, that there's information in the CLEC data that we've not really talked about today.

MR. SELWYN: If this market were competitive, then the ILECs would be responding to those competitive CLEC prices and the kind of data that's being suggested wouldn't even be necessary. The reason that they're asking for it is because obviously they're not responding to it, and you can't -- the CLEC prices aren't probative. As a general matter, if they're Type 2 prices, they're certainly not probative because they're using the incumbent's prices are for. And with respect to Type 1 prices, those have to in part recover the costs of perhaps not making any money on the Type 2 services. These are not competitive markets. Those prices have no particular meaning. And if they were competitive, ILEC wouldn't have to ask for it.

MR. CARLTON: Wait a minute. I think maybe you didn't -- you weren't listening to my -- what I answered. The variation in the CLEC pricing contained information it seems to me about the effect of competition, if the level of competition varies across markets that they're competing in, period.

MR. SELWYN: Or it might be based on the proportion in any given -- large geographic market of the amount of Type 2 services they have to provide in order to be competitive.

MR. CARLTON: I agree that the Type --

the Type 2 point you have to be in separately, but let's just keep it clean. You've still got the Type 1s. There's no question that the variation in CLEC pricing is telling you something.

MR. SELWYN: You can't just look at the Type 1s, that's my point. You have to look at the total network that they're -- the total package of services they're providing. They may not be able to cut the price of Type 1s if they're forced to buy a lot of Type 2s in a given market, and there are a lot of factors that go into the pricing, into a CLEC's pricing, in any given market, and you can't take the Type 1s in isolation.

MR. STOCKDALE: One last question from the audience. And there some others, but we're running out of time. And it follows up from the discussion we were just having. The questioner basically asked about, "How our analysis should address the phenomenon of multi-location customers, both for purposes of market definition and for assessing competition." And so if the panelists can offer their thoughts, that would be useful.

MR. SELWYN: Well, this was a specific subject of my declaration back in January, so let me take a shot at it. You know, the point is -- and I think I've made this point several times today, so I don't want to just repeat it again -- but the multi-location customer places a great deal of value on having a sole source provided who takes full responsibility for managing the network and interconnecting all of its components. So in order to compete, that provider has to be capable of offering service -- it could be Type 1 or Type 2 -- at each of that customer's locations. And so, you know, this gets us back to the geographic market being an individual building, and in the case of multi-location customers, the collection of the buildings that that particular customer requires service at. And unless there is some economically feasible way for the provider to serve all of that customer's locations, they're out of the market. So it is both the individual building and the collection of buildings.

MR. STOCKDALE: Drs. Carlton and Taylor, do you want to say anything?

MR. CARLTON: You know, my understanding, when Bill was describing the examples of the benchmarks and that you had to adjust for everything, that one of the things he was going -- either explicitly or implicitly -- he was going to adjust for is the different characteristics of the customers, as well as I think the different domain characteristics of the environment in which the ILEC is operating, the different domain characters. That's it.

MR. BAKER: All right. Well, according to my watch, we have gone only one minute later than the scheduled time.

And I think we want to thank our panelists not just for keeping us to time, but for a riveting session. So thank -- so I hope you'll join me in thanking Lee Selwyn, Bridger Mitchell, Bill Taylor, Dennis Carlton, and thank all of you for joining us today. (Applause)

* * * * *

CERTIFICATE OF NOTARY PUBLIC

I, Carleton J. Anderson, III do hereby certify that the forgoing electronic file when originally transmitted was reduced to text at my direction; that said transcript is a true record of the proceedings therein referenced; that I am neither counsel for, related to, nor employed by any of the parties to the action in which these proceedings were taken; and, furthermore, that I am neither a relative or employee of any attorney or counsel employed by the parties hereto, nor financially or otherwise interested in the outcome of this action.

/s/Carleton J. Anderson, III

Notary Public in and for the
Commonwealth of Virginia
Commission No. 351998
Expires: November 30, 2012